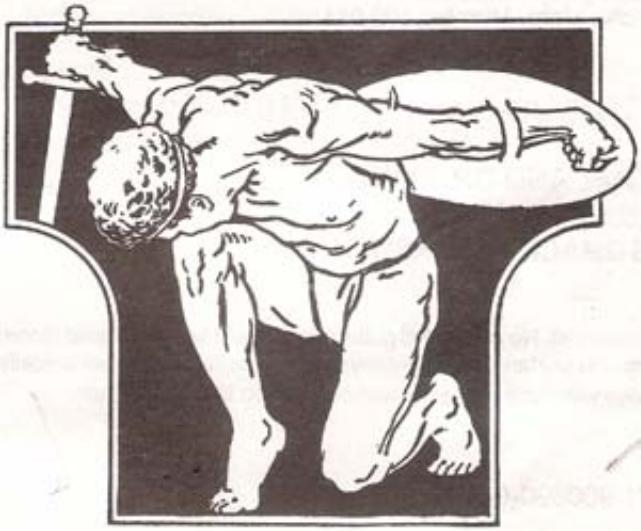
ANATOMY AND DRAWING

BY VICTOR PERARD

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DEDICATED TO
MY WIFE ERNESTINE PERARD

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OVER A THOUSAND ILLUSTRATIONS

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PREFACE

The purpose of this book is to present in a simple and direct manner the subject of anatomy as it is applied to Art. As little text as possible has been used, and much dependence has been placed on pictorial representation because the latter are a more direct means of impressing the artist with construction and form. For this reason this work has been copiously illustrated, often showing various views of the same structures and action.

To the beginner the study of anatomy is too often dull, prosaic and difficult and this is due, in large part, to the fact that many text books on the subject contain insufficient descriptive drawings. Even though the subject plows through many pages of text, he often fails to visualize the subject properly. Therefore it has been endeavored to substitute

Illustrations for descriptive text whenever practical. The drawing have been arranged in groups for the purpose of comparison, and in this way theeye becomes accustomed to observe much which otherwisemight escape attention.

To express outward form correctly requires a knowledge of the internal structure, that is, of the bones which compose the framework and define its proportions and of the muscles and tendons which direct its action.

Every figure artist finds sooner or later, as he advances in his artist career, that his work needs strengthening through a well grounded knowledge of anatomy. The great masters of the past realized this and their grasp on the fundamentals of anatomy is reflected not only on their finished works, but in such of their preliminary sketches as are still preserved.

The ability to construct figures correctly from the imagination rather then to depend entirely on models is a distinct aid to the draftsman and to the sculptor. The student of anatomy should therefore test his skill by making memory drawing and by applying his knowledge to compositions of his own fancy.

When working from living models, the artist will find that his knowledge of anatomy will enable him to analyze and interpret the forms before him in a more understanding way

then he could without such information. It will develop in him greater powers of observation. An understanding of anatomy is an instrument in the mechanics of Art: a means to be employed to assist but never allowed to dominate. The artist must learn properly to evaluate his anatomical information and to know the part it is to play in the development of his art. The studies he makes will then be done more intelligently and with better draftsmanship as an inevitable result.

VICTOR PERARD



NOTES ON PROPORTION

Since proportion is the comparative relation of one thing to another, some standard or unit of measure must arbitrarily be established. In Art, this unit is known as the "head" which is the distance from the top of the skull to the tip of the chin. The illustrations is this book are based on the proportion of seven and a half "heads" to the height of an erect figure. The use of this standard will obviate much

descriptive text. It is well, however to bear in mind that this standard of proportion is modified by such elements as race, sex, age and physical differences peculiar to the individual. For this reason the following notes on proportion are grouped under the heads: Male, Female, Children and General Observations.

Proportions of the Male. The greatest width of the male figures is at the deltoids, a little below the shoulders and the width here is about two heads.

The width between the hips should equal one and one half heads, and the width between the nipples one head.

The height of the figure, seven and one-half heads, should approximate one "head" for the head, two and three-quarter heads for the neck and trunk, and three and three-quarter heads for the lower extremities.

From the finger tips to the elbow should measure two heads.

Proportions of the Female. The bones of the female are shorter and have less rough surface than those of the male. The sternum or breast bone is shorter and more curved and the pelvis is broader and shallower which gives a greater width to the hips. The sacrum is wider and projects at an angle backward.

The posterior superior iliac spines and the anterior iliac

spines are further apart than those of the male. The distance from the rib cage to the pelvis is greater due to the shallower and broader pelvis.

There is less distance from the crest of the iliacs to the great trochanters of the hips, because the anterior iliac spines are spread out and lower, and further apart. In the female figure the Poupart's ligaments and the furrow of the groin are more horizontal.

The shoulders are narrower and the collar bones (clavicles) straighter and shorter thus giving a more graceful and longer neck and more sloping shoulders in comparison with the square shoulders of the male.

The arms are shorter in proportion to the trunk which is due to the shorter humerus bone of the female, and because the humerus bone is shorter, the elbow is higher.

Variations in the length of the female leg are more frequent than those of the trunk and so it is more difficult to judge the height of the female figure when seated. But the length of the torso is proportionately longer than in the other sex. The legs are shorter and the skull smaller.

The center of the female figures is above the pubic bone while in the male, the center is about at the pubic bone. The width of the female hips is about the width of the chest wall plus that of one arms and is greater than that of the male of the same height. The fact that the female sacrum is at a greater

angle than that of the male and that there is more fat on the buttocks gives these a greater diameter.

The female abdomen, is more rounded and the thighs are thicker from the back to the front than in the other sex.

Proportions of Children. The child of three is about one half the height of the adult, and at ten, about three-quarters the height of the adult. As the child grows older the relative sizes of the head and the trunk change. At twenty-five the figures is full grown.

At birth the centre of the figure is a little above the navel, at two years at the navel and at three years the center is level with the iliac bone.

With advancing age this point gradually lowers depending to great extent on the length of the legs.

General Observations. The clavicle bone continues to grow for a considerable period after the other bones of the body have attained their full development and therefore the shoulders are said to broaden

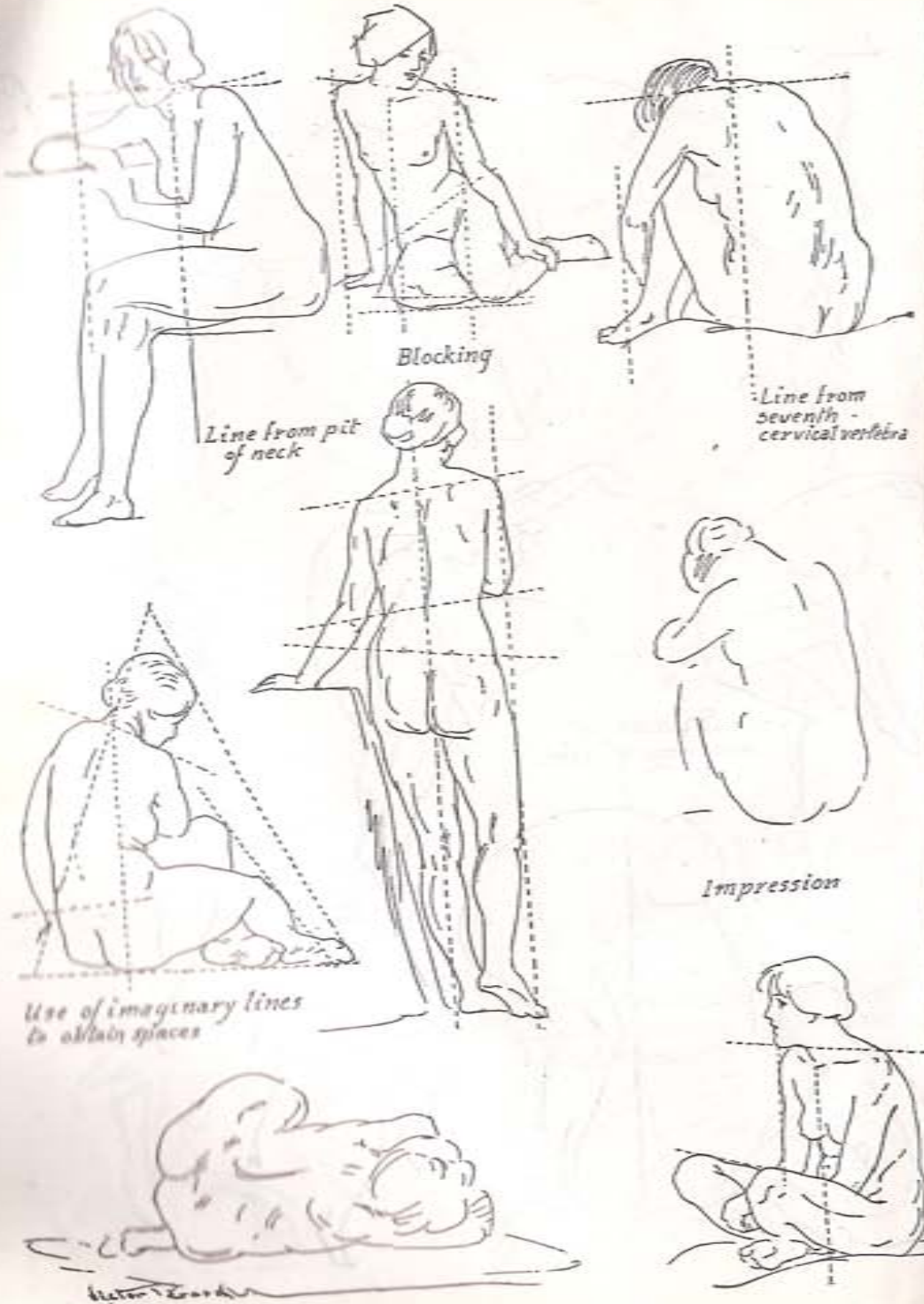
Only very tall people have a height of eight heads. Short people are seven heads or less. The muscles of the adult account for about one half the weight of the body.

The skeleton always provides the proportions of the figure with slight allowances for the padding between the joints, between each vertebra, and under the heel and foot. In old age the figure shortens due to the hardening and shrinking of the cartilages between the bones.

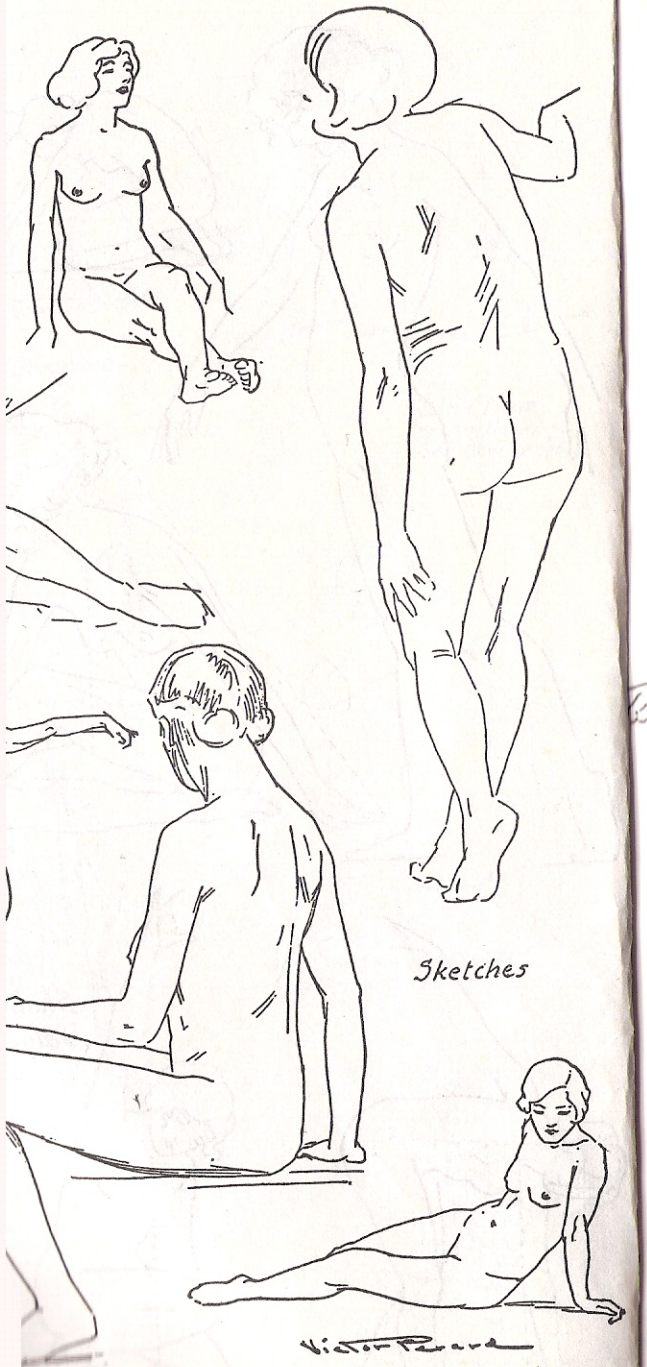


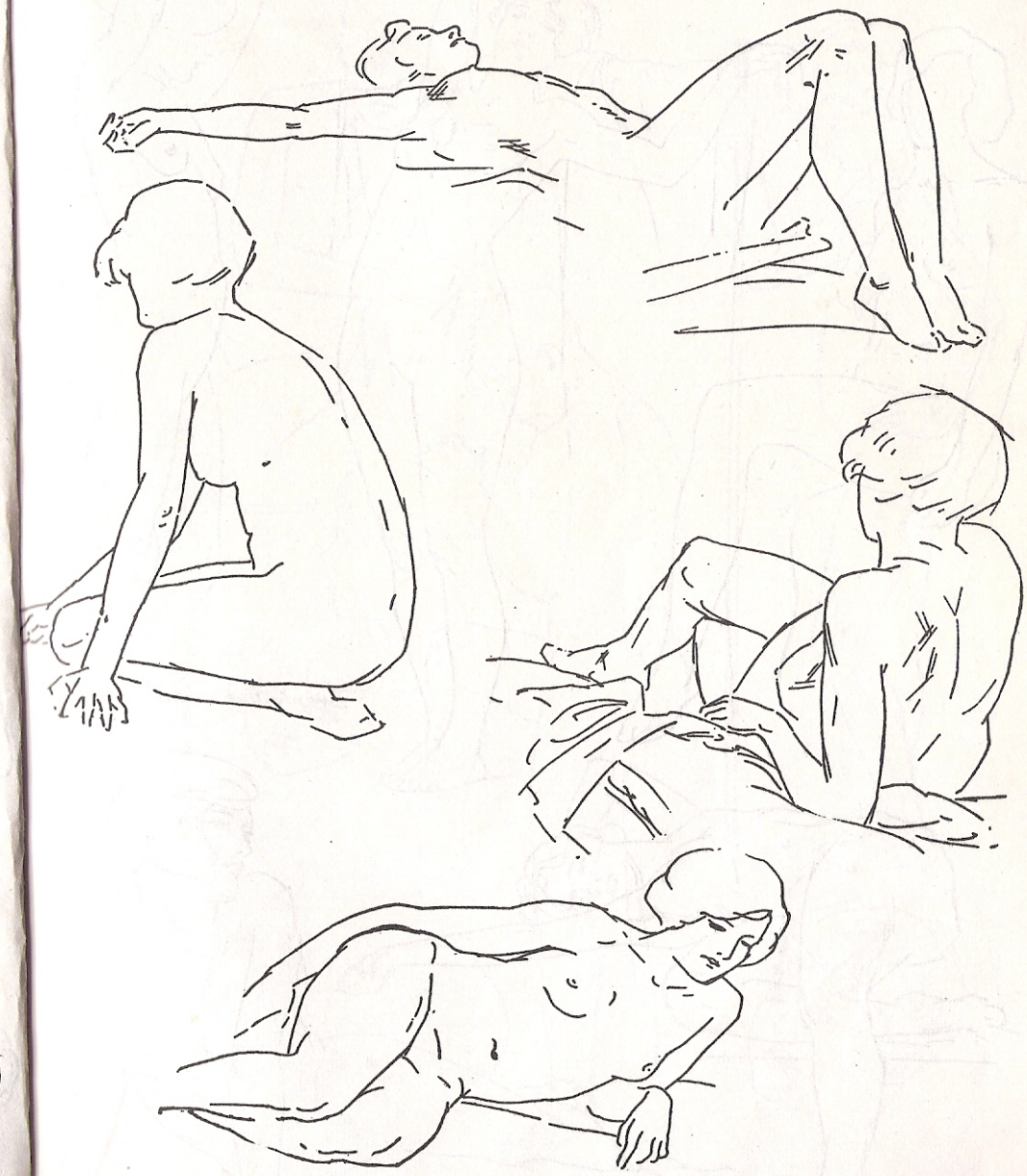
PART I
PROPORTION
AND
DRAWING

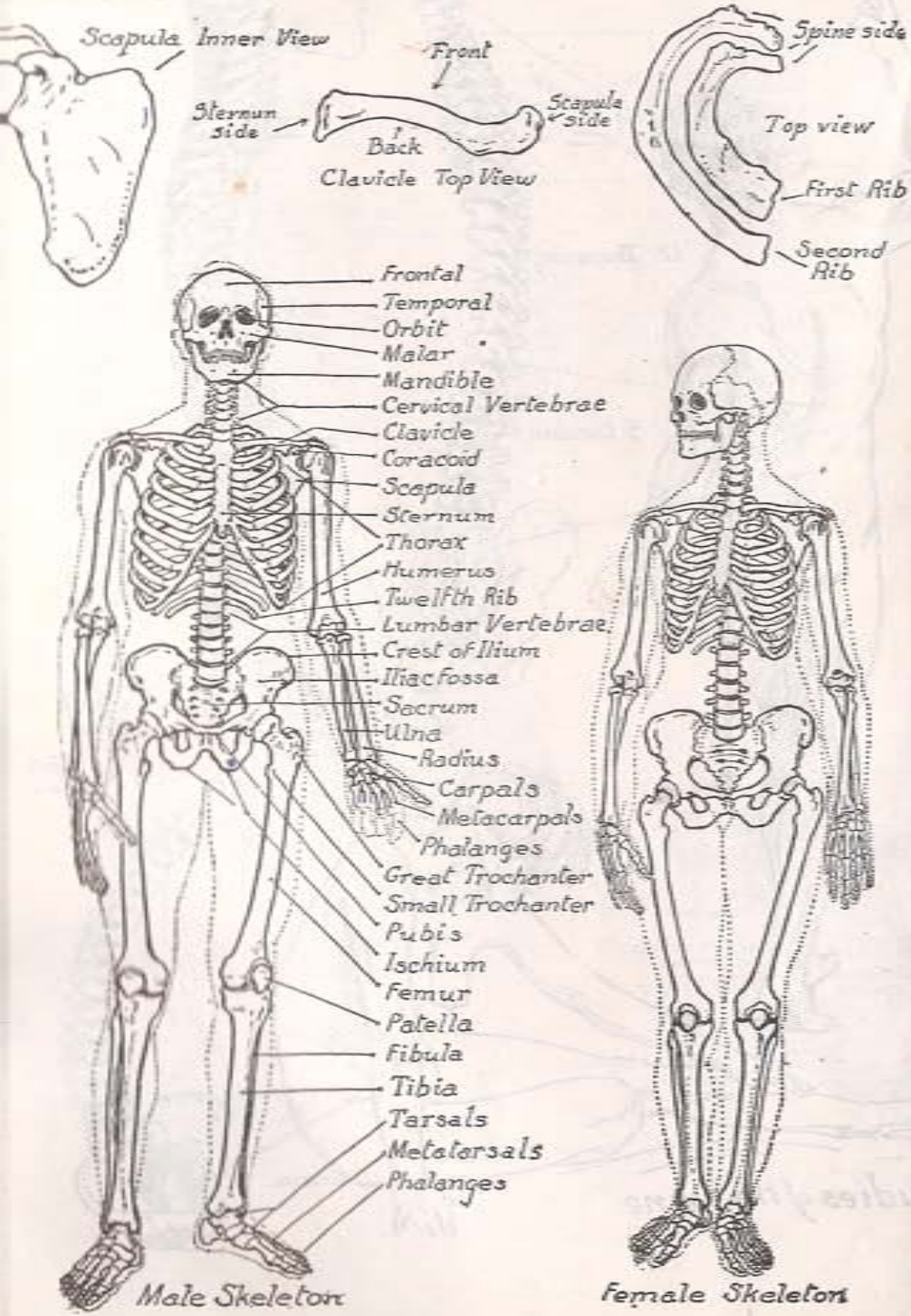


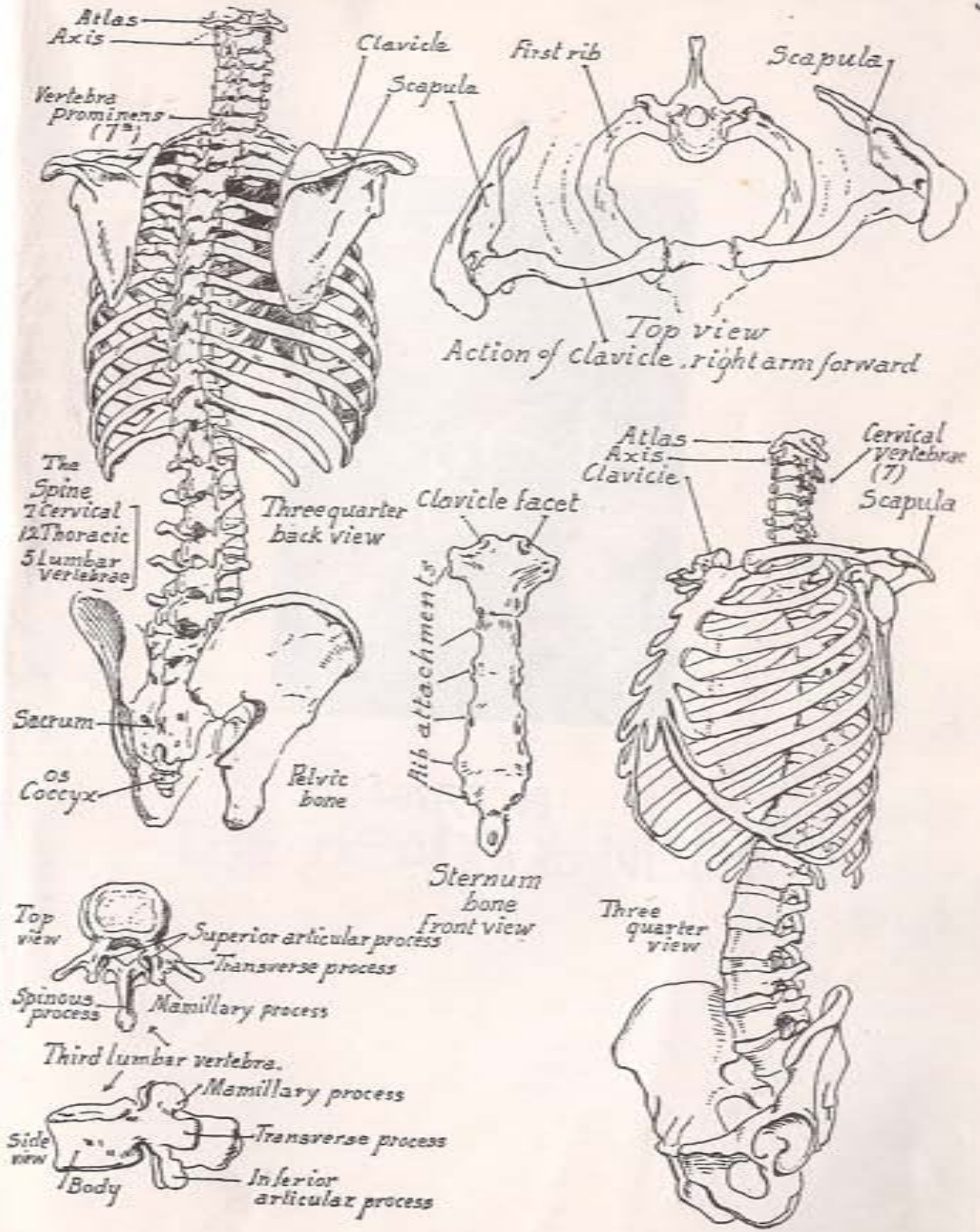

Blocking
Line from pit of neck
Line from seventh cervical vertebra
Impression
Use of imaginary lines to obtain spaces


Studies for the value and economy of line


Sketches
Victor Perard

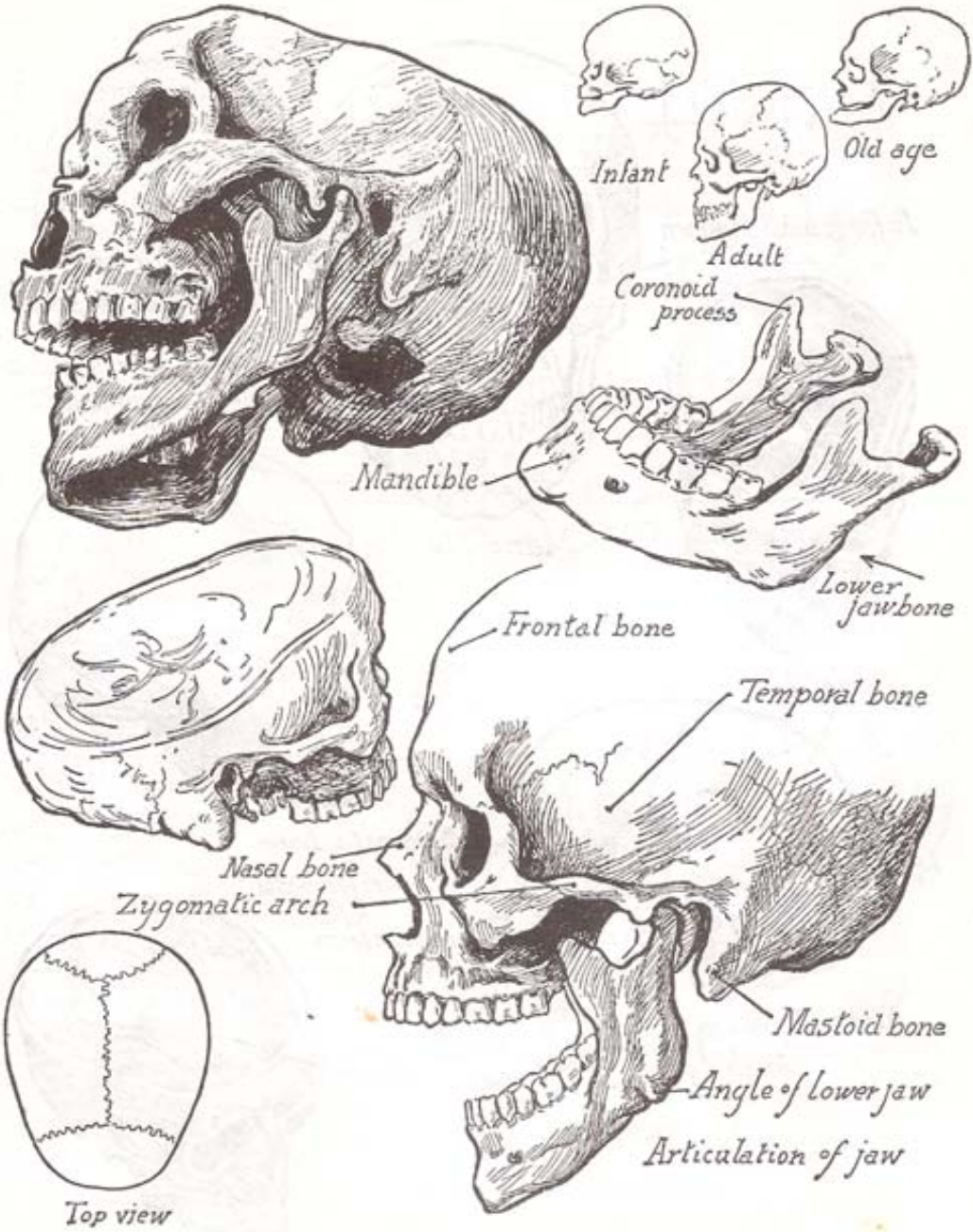



Scapula Inner View
Front
Sternum side
Scapula side
Back
Clavicle Top View
Spine side
Top view
First Rib
Second Rib
Frontal
Temporal
Orbit
Malar
Mandible
Cervical Vertebrae
Clavicle
Coracoid
Scapula
Sternum
Thorax
Humerus
Twelfth Rib
Lumbar Vertebrae
Crest of Ilium
Iliac fossa
Sacrum
Ulna
Radius
Carpals
Metacarpals
Phalanges
Great Trochanter
Small Trochanter
Pubis
Ischium
Femur
Patella
Fibula
Tibia
Tarsals
Metatarsals
Phalanges
Male Skeleton
Female Skeleton

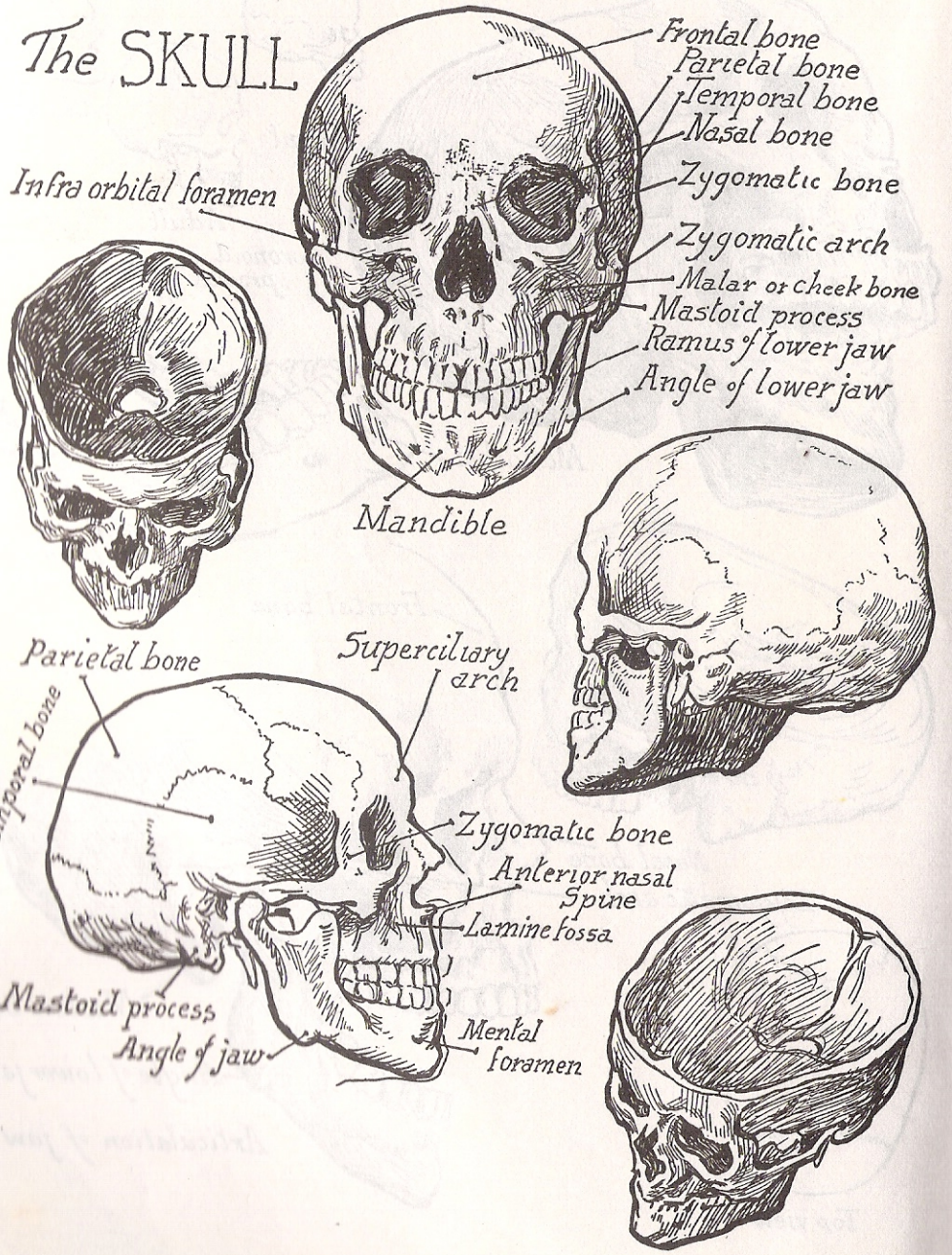

Atlas
Axis
Vertebra prominens (7th)
Clavicle
Scapula
First rib
Scapula
Top view
Action of clavicle, right arm forward
The Spine
7 Cervical
12 Thoracic
5 Lumbar Vertebrae
Three quarter back view
Sacrum
Os Coccyx
Pelvic bone
Clavicle facet
Rib attachments
Sternum bone front view
Atlas
Axis
Clavicle
Cervical Vertebrae (7)
Scapula
Three quarter view
Top view
Superior articular process
Transverse process
Spinous process
Mamillary process
Third lumbar vertebra.
Mamillary process
Side view
Transverse process
Body
Inferior articular process

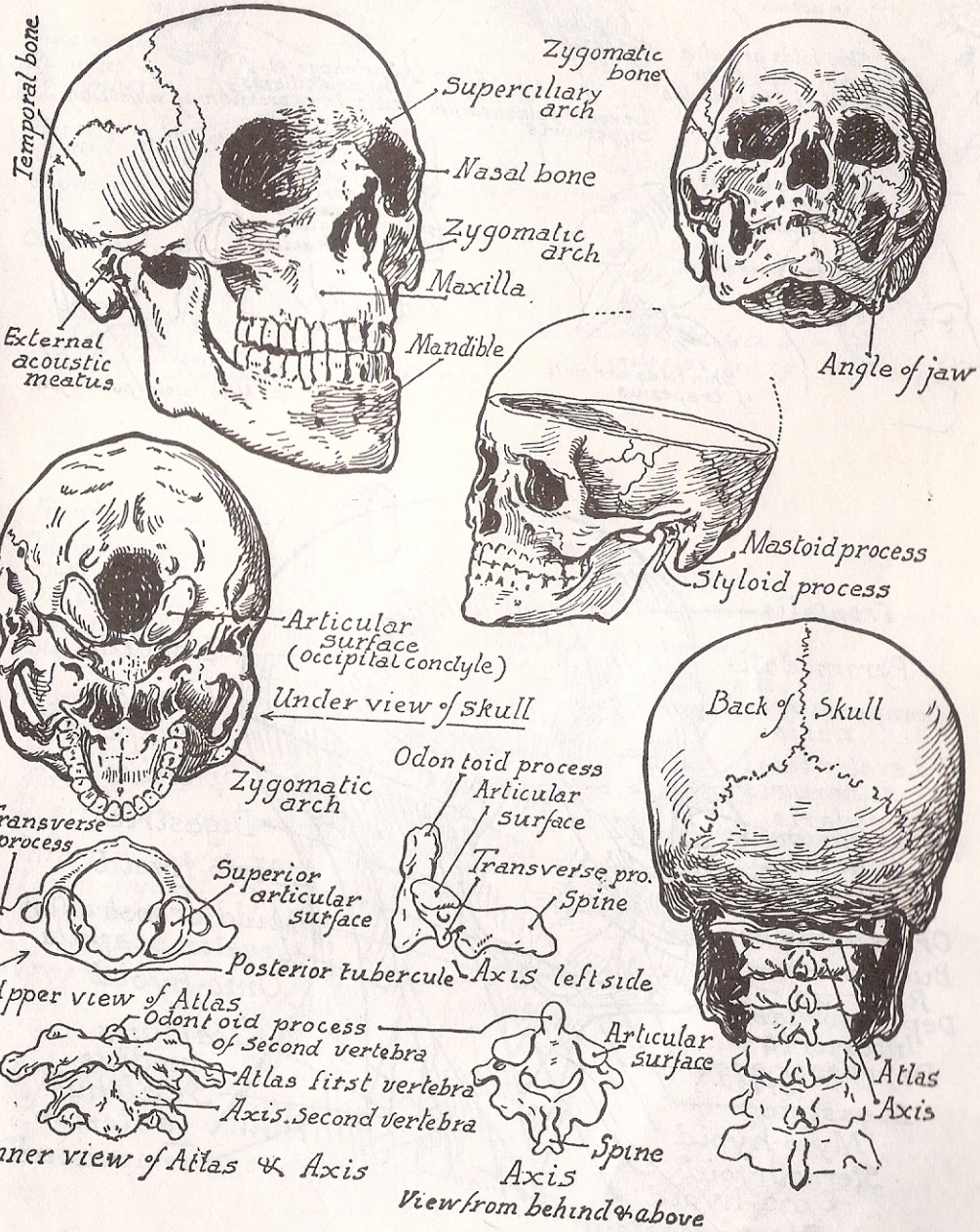


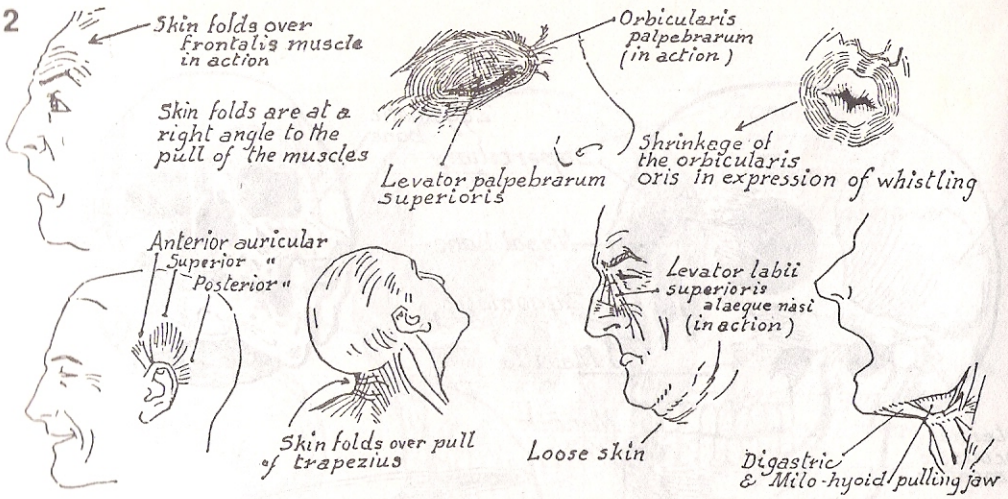
PART III
THE HEAD AND NECK

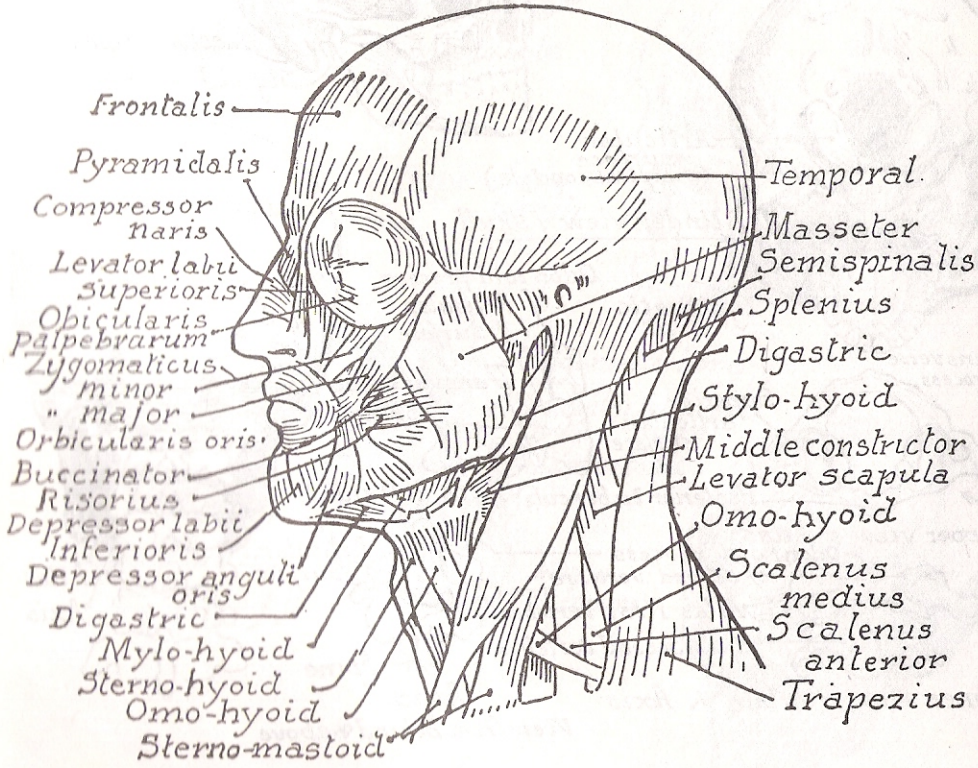

Infant
Old age
Adult
Coronoid process
Mandible
Lower jaw bone
Frontal bone
Temporal bone
Nasal bone
Zygomatic arch
Mastoid bone
Angle of lower jaw
Articulation of jaw
Top view

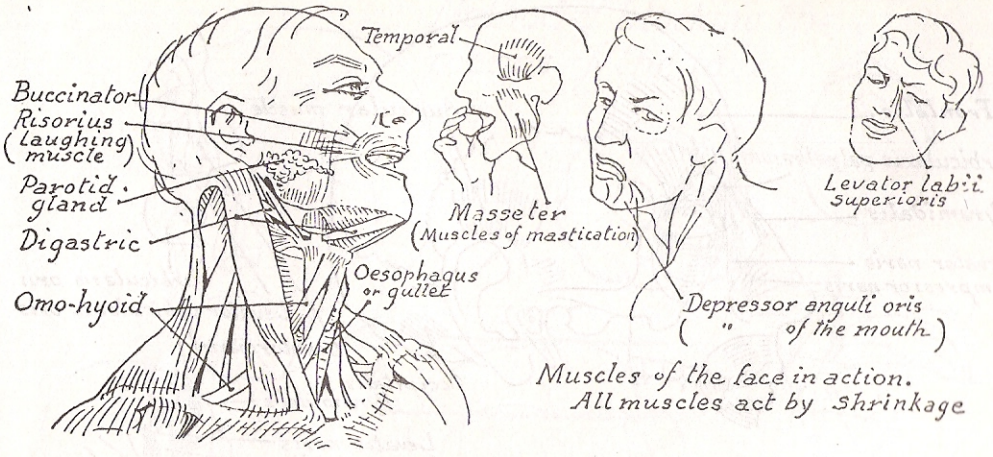
The SKULL


Frontal bone
Parietal bone
Temporal bone
Nasal bone
Infra orbital foramen
Zygomatic bone
Zygomatic arch
Malar or cheek bone
Mastoid process
Ramus of lower jaw
Angle of lower jaw
Mandible
Parietal bone
Superciliary arch
Temporal bone
Zygomatic bone
Anterior nasal Spine
Lamine fossa
Mastoid process
Angle of jaw
Mental foramen

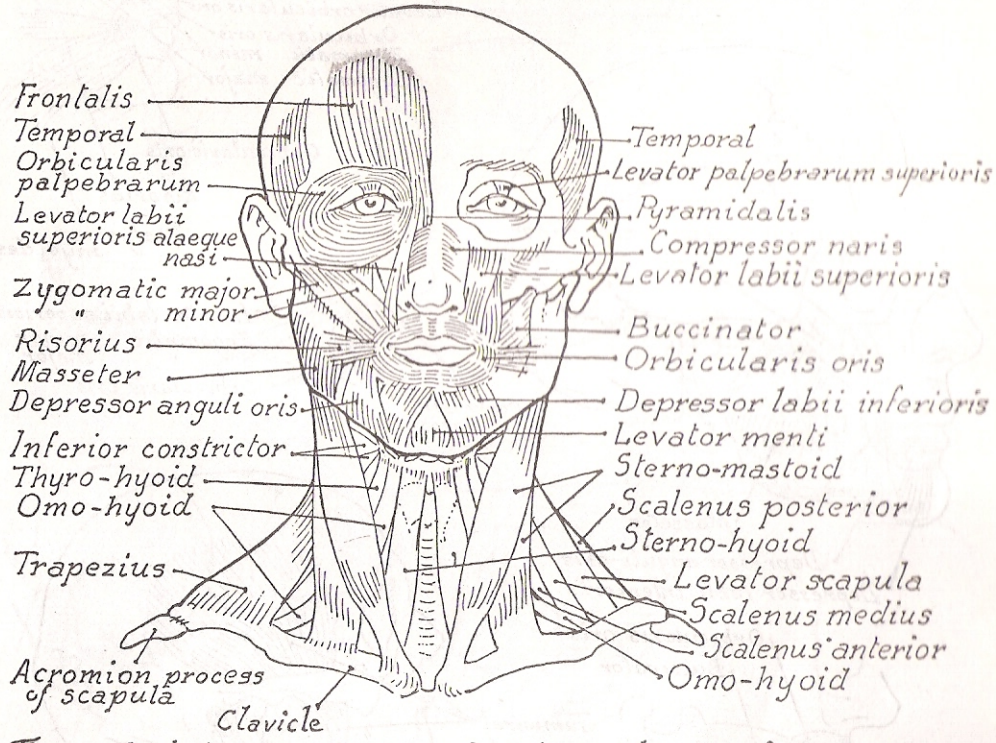

Temporal bone
Superciliary arch
Zygomatic bone
Nasal bone
Zygomatic arch
Maxilla
External acoustic meatus
Mandible
Angle of jaw
Mastoid process
Styloid process
Articular Surface (occipital condyle)
Under view of Skull
Zygomatic arch
Back of Skull
Odontoid process
Articular surface
Transverse process
Transverse pro.
Superior articular surface
Spine
Posterior tubercule
Axis left side
Upper view of Atlas
Odontoid process of second vertebra
Articular surface
Atlas first vertebra
Atlas
Axis
Axis second vertebra
Spine
Inner view of Atlas & Axis
Axis
View from behind & above



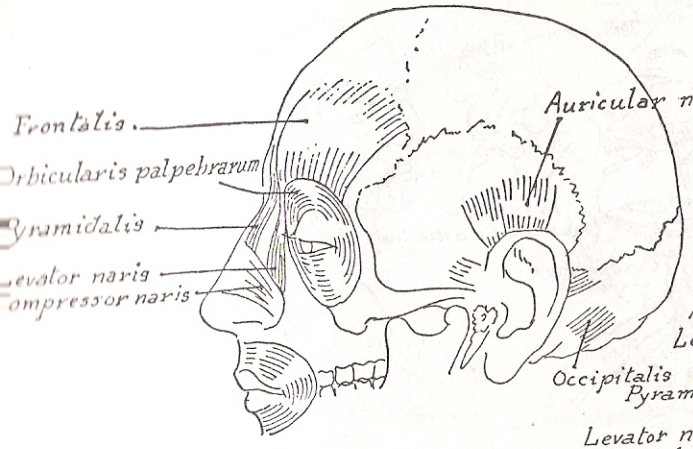




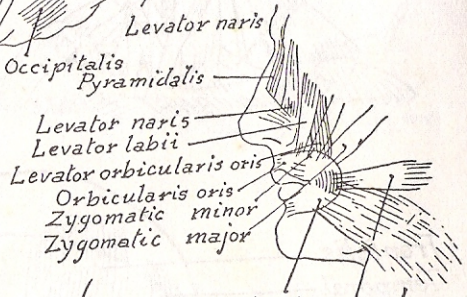
Muscles of the face in action.
All muscles act by shrinkage

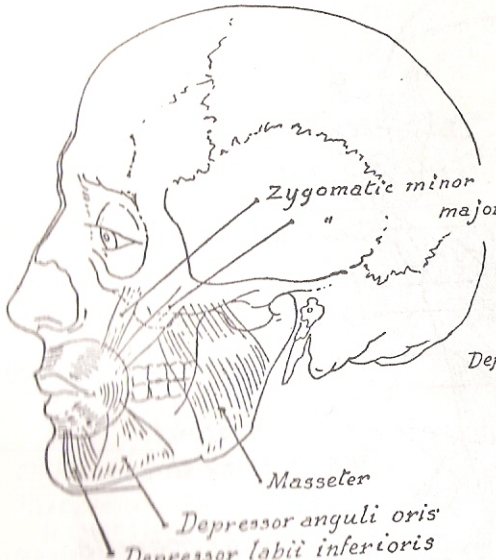


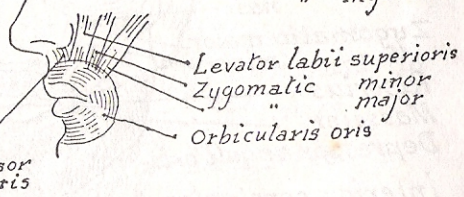
The underlying and the superficial muscles of the face and neck

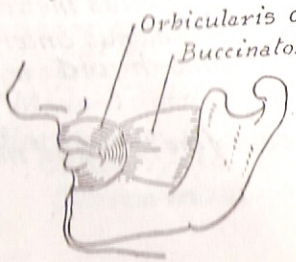


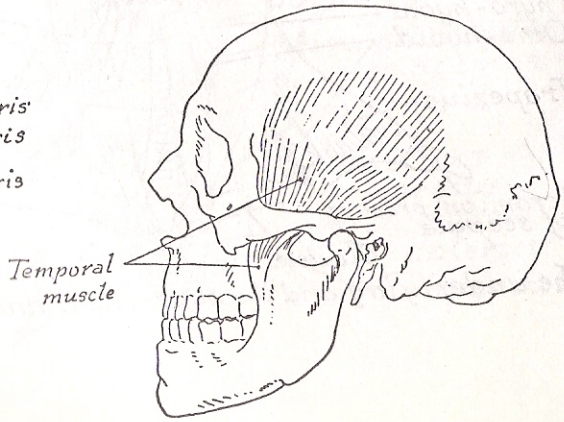




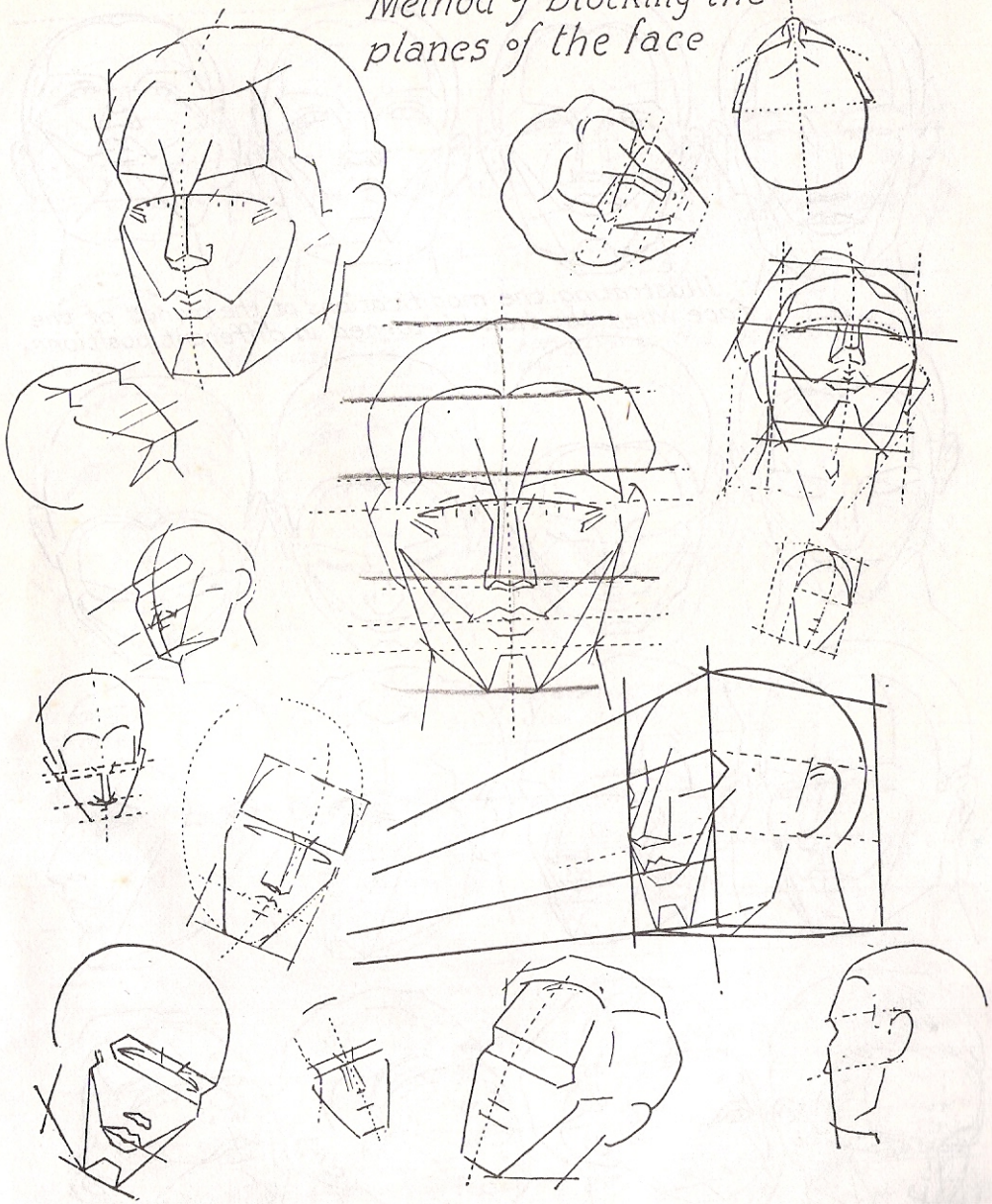


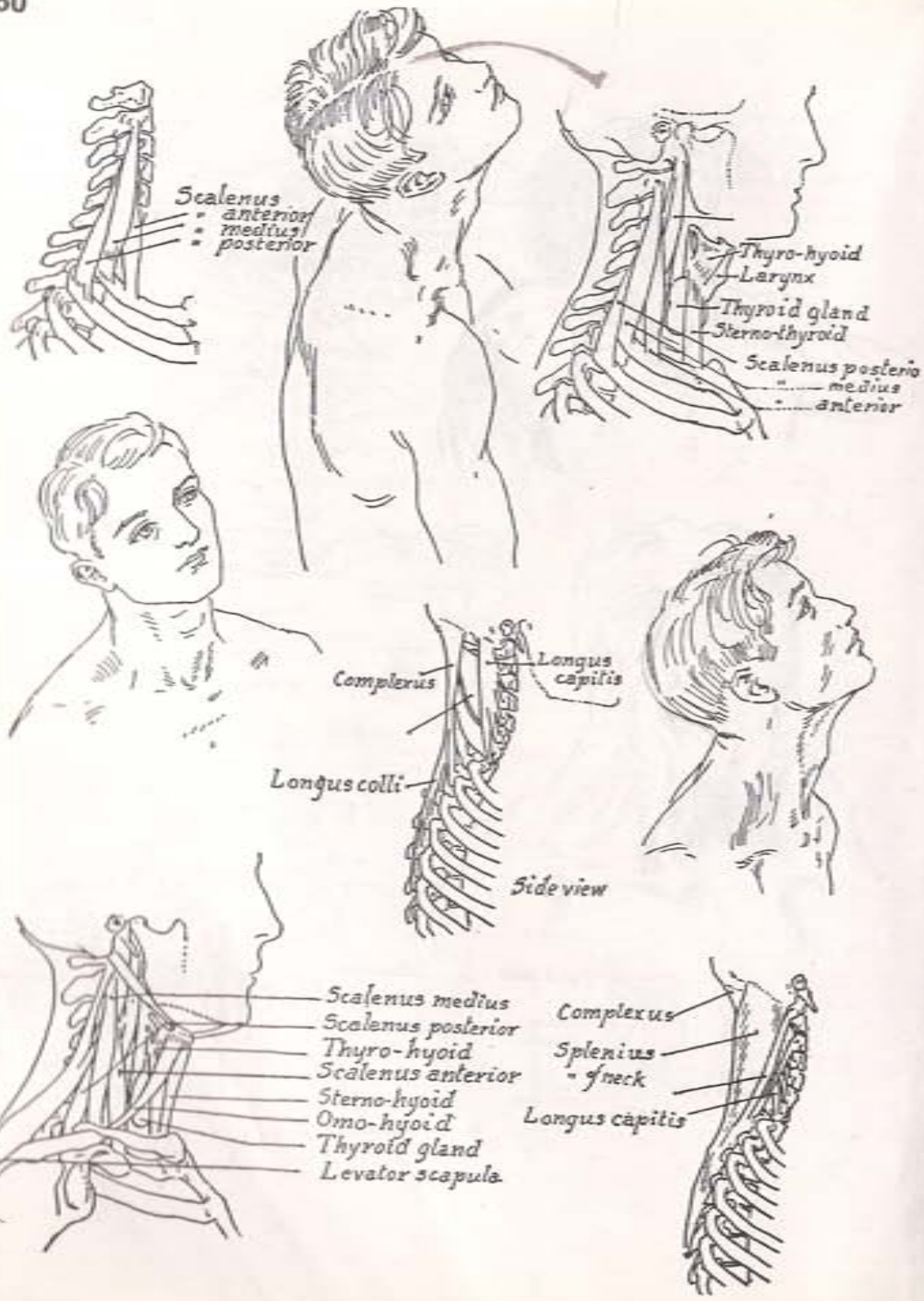






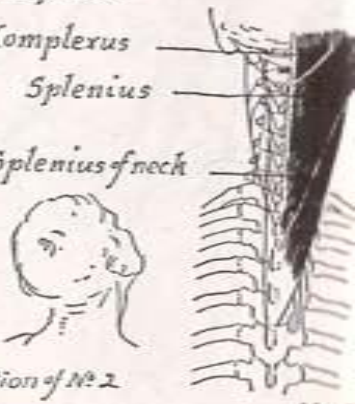
Method of blocking the planes of the face











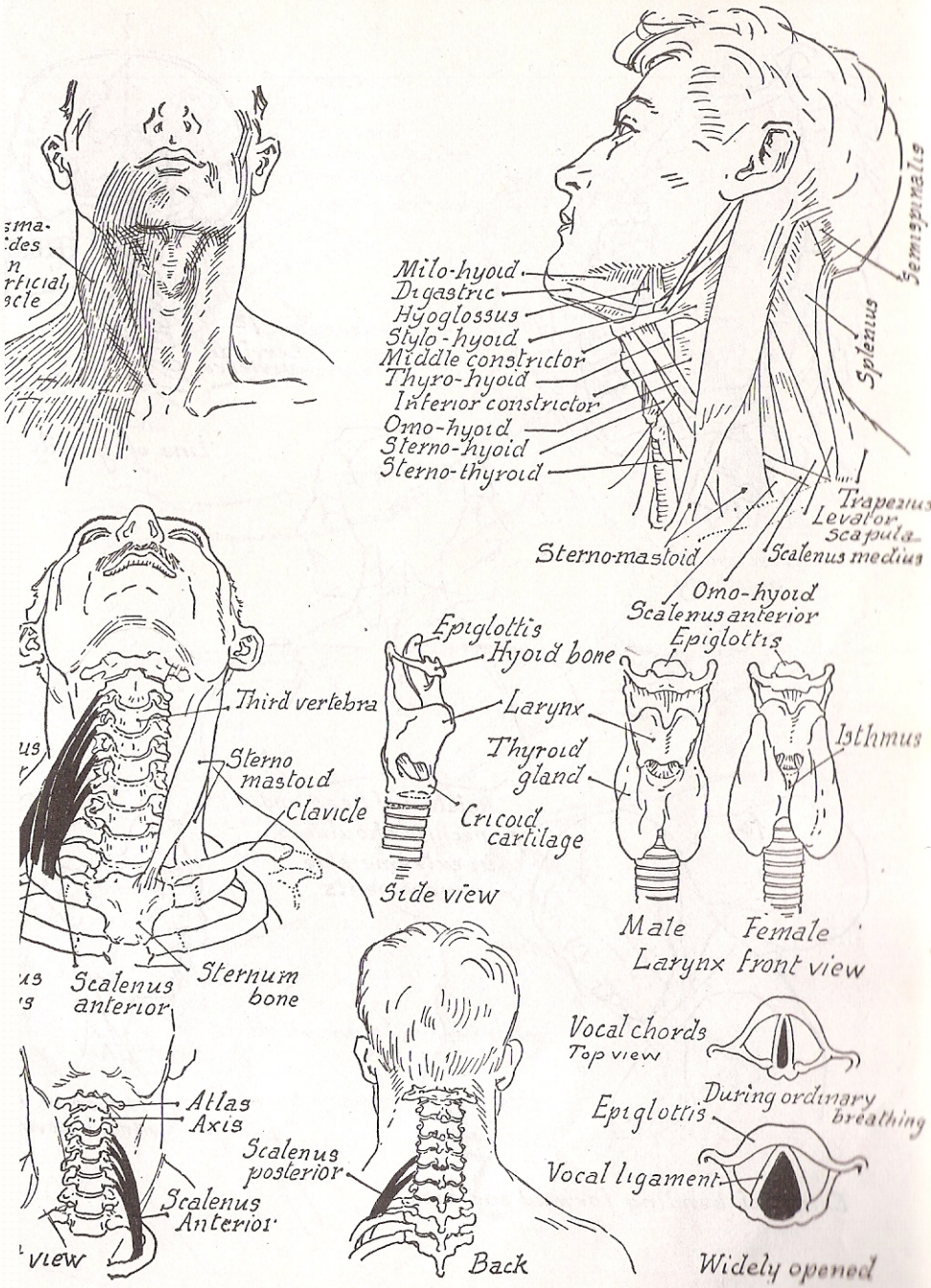


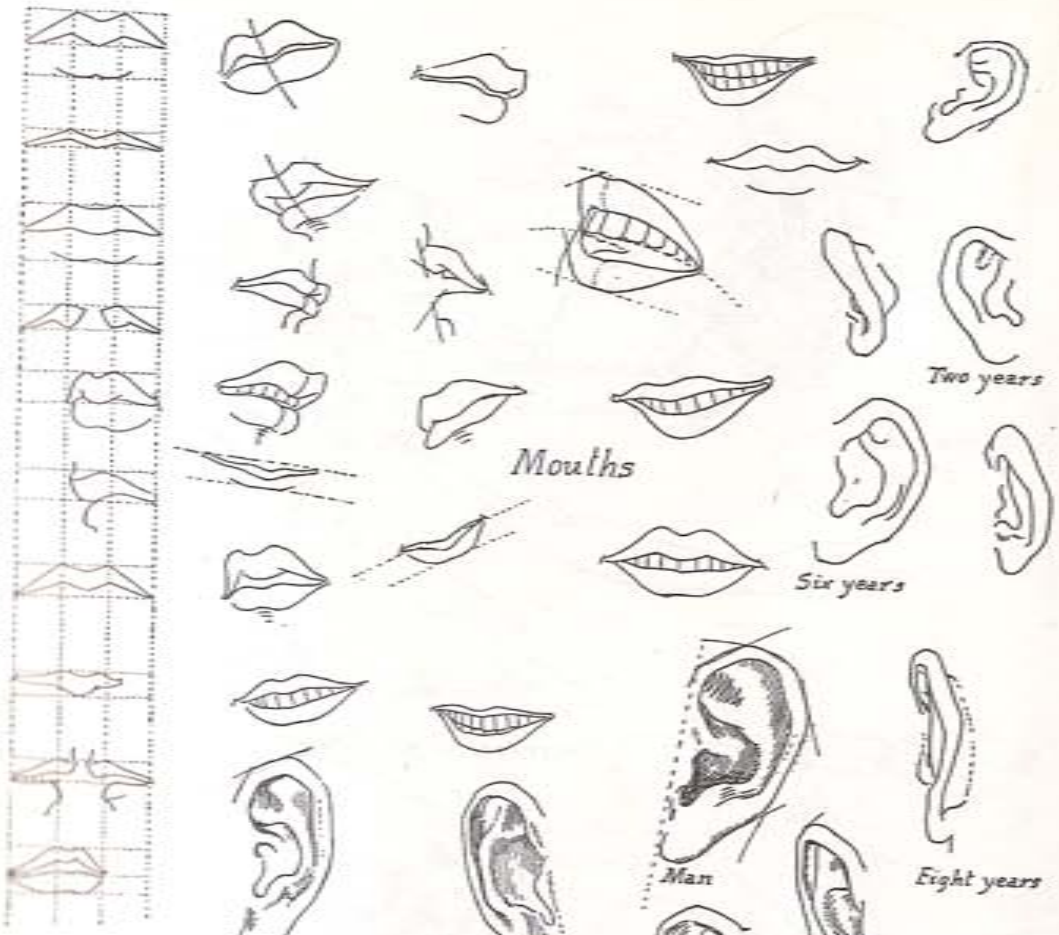


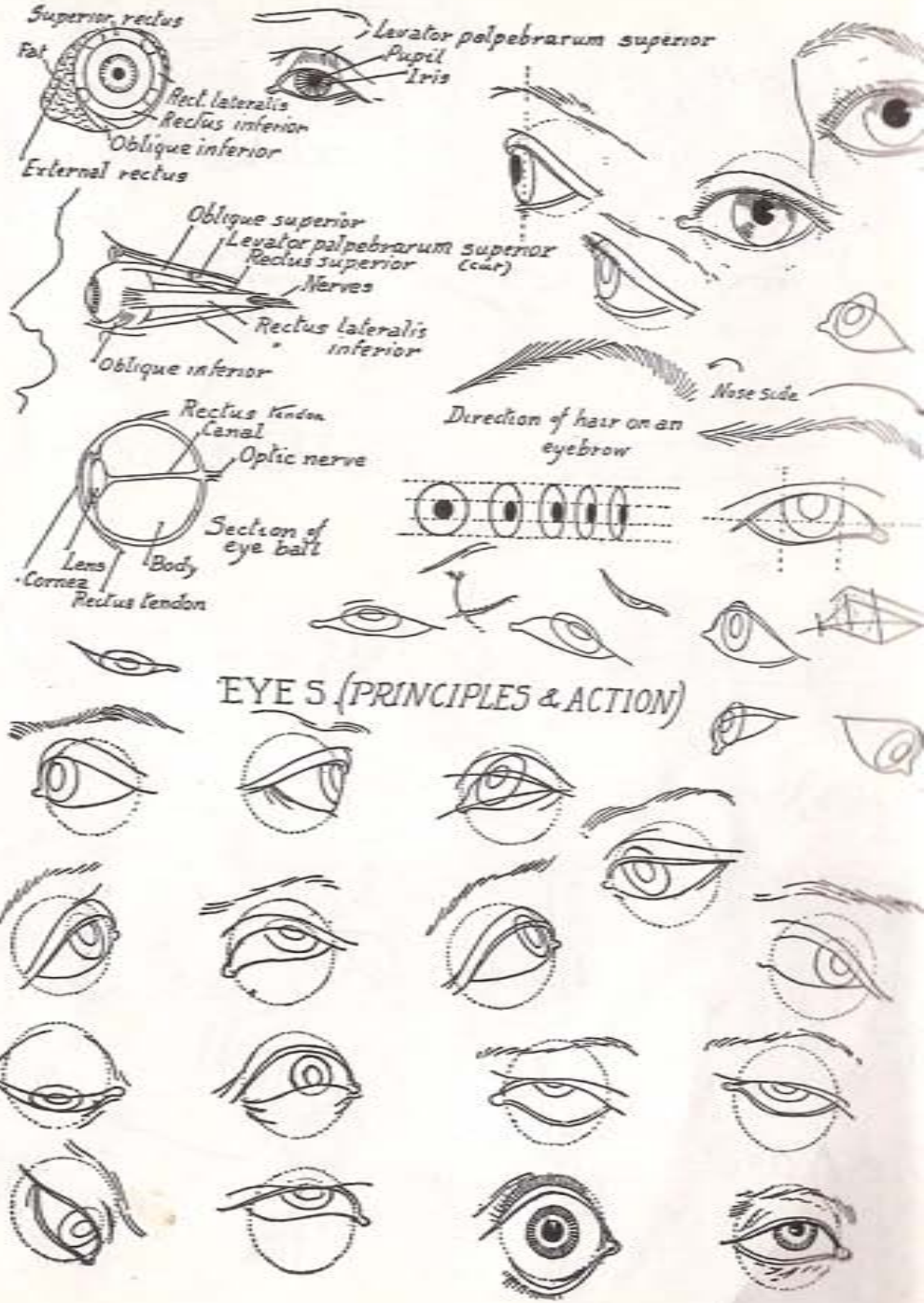
Muscles of back of neck

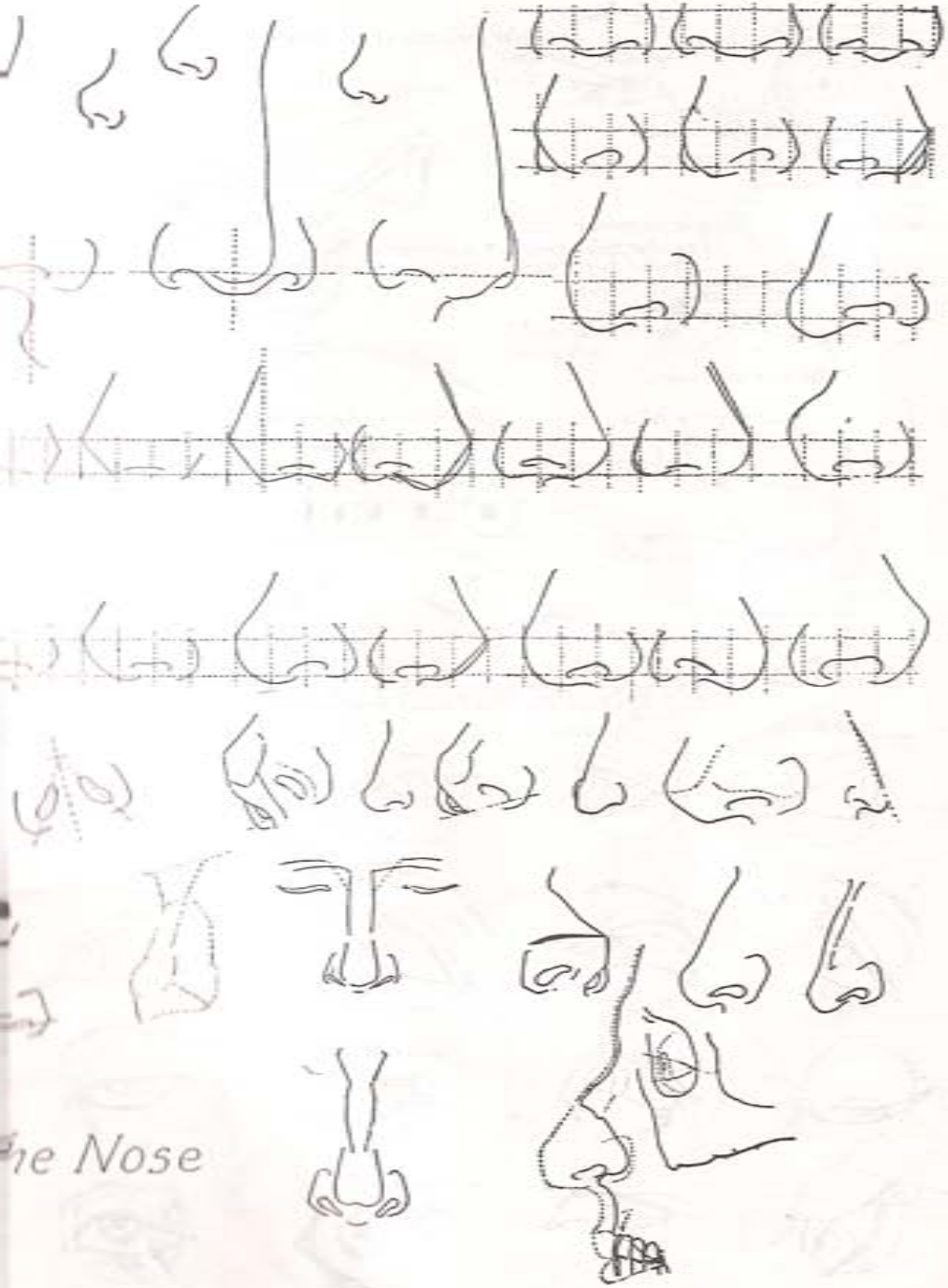





Mylo-hyoid
Digastric
Hyoglossus
Stylo-hyoid
Middle constrictor
Thyro-hyoid
Inferior constrictor
Omo-hyoid
Sterno-hyoid
Sterno-thyroid
Semispinalis
Splenius
Trapezius
Levator scapulæ
Sterno-mastoid
Scalenus medius
Omo-hyoid
Scalenus anterior
Epiglottis
Hyoid bone
Larynx
Thyroid gland
Cricoid cartilage
Side view
Epiglottis
Isthmus
Male
Female
Larynx front view
Third vertebra
Sterno mastoid
Clavicle
Scalenus anterior
Sternum bone
Atlas
Axis
Scalenus posterior
Scalenus Anterior
Back
Vocal chords
Top view
During ordinary breathing
Epiglottis
Vocal ligament
Widely opened


Mouths
Two years
Six years
Eight years
Man
Woman
Man
Man
Woman
Man
Old man
Ears
Man
Zygomatic arch
Cheek bone
Mandible (Jaw bone)
Mastoid process
External acoustic meatus

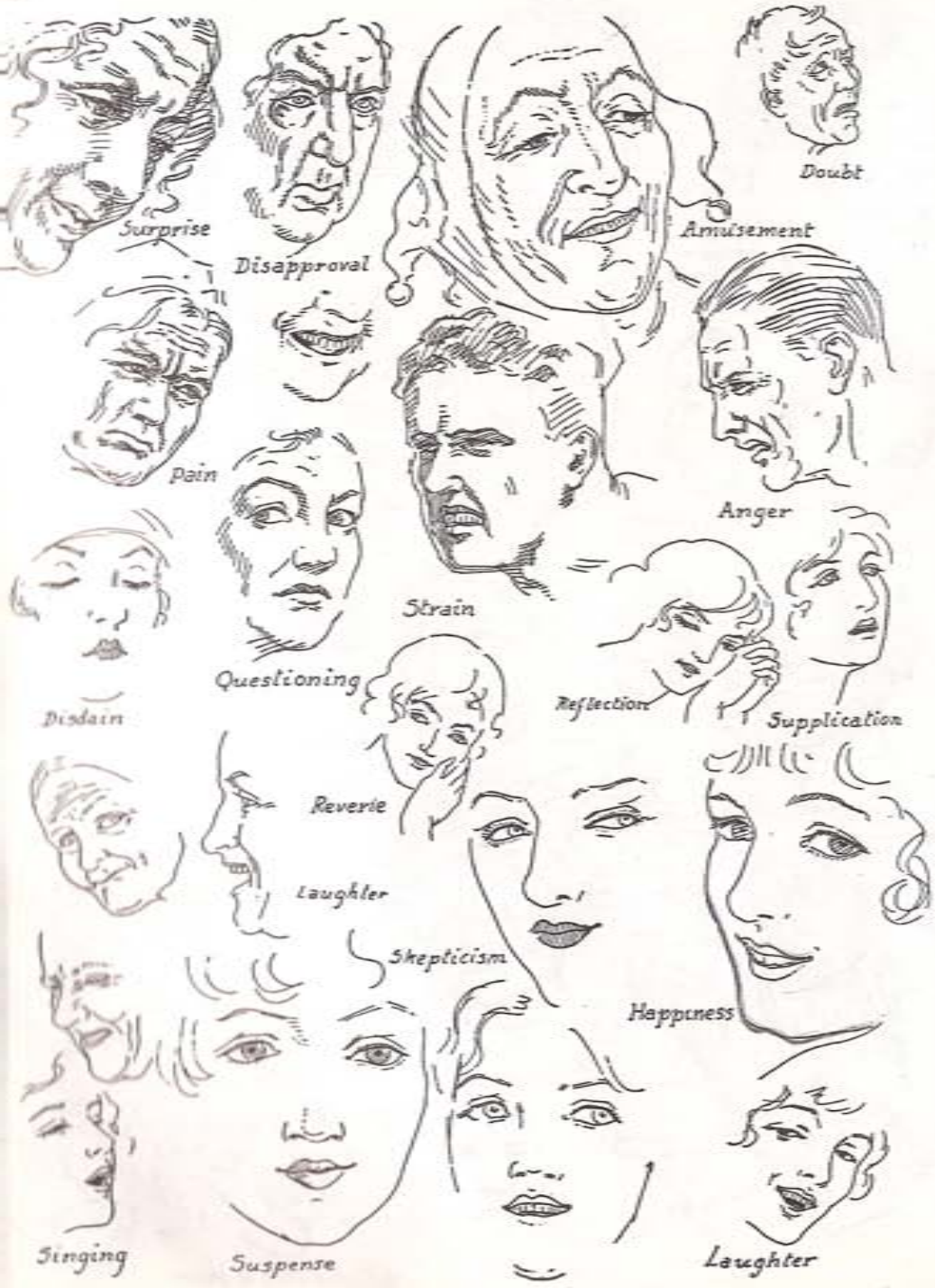

Superior rectus
Fat
Rect. lateralis
Rectus inferior
Oblique inferior
External rectus
Levator palpebrarum superior
Pupil
Iris
Oblique superior
Levator palpebrarum superior
Rectus superior
Nerves
Rectus lateralis
inferior
Oblique inferior
Rectus tendon
Canal
Optic nerve
Section of eye ball
Lens
Body
Cornea
Rectus tendon
Nose side
Direction of hair on an eyebrow
EYE S (PRINCIPLES & ACTION)



he Nose



The five races of man

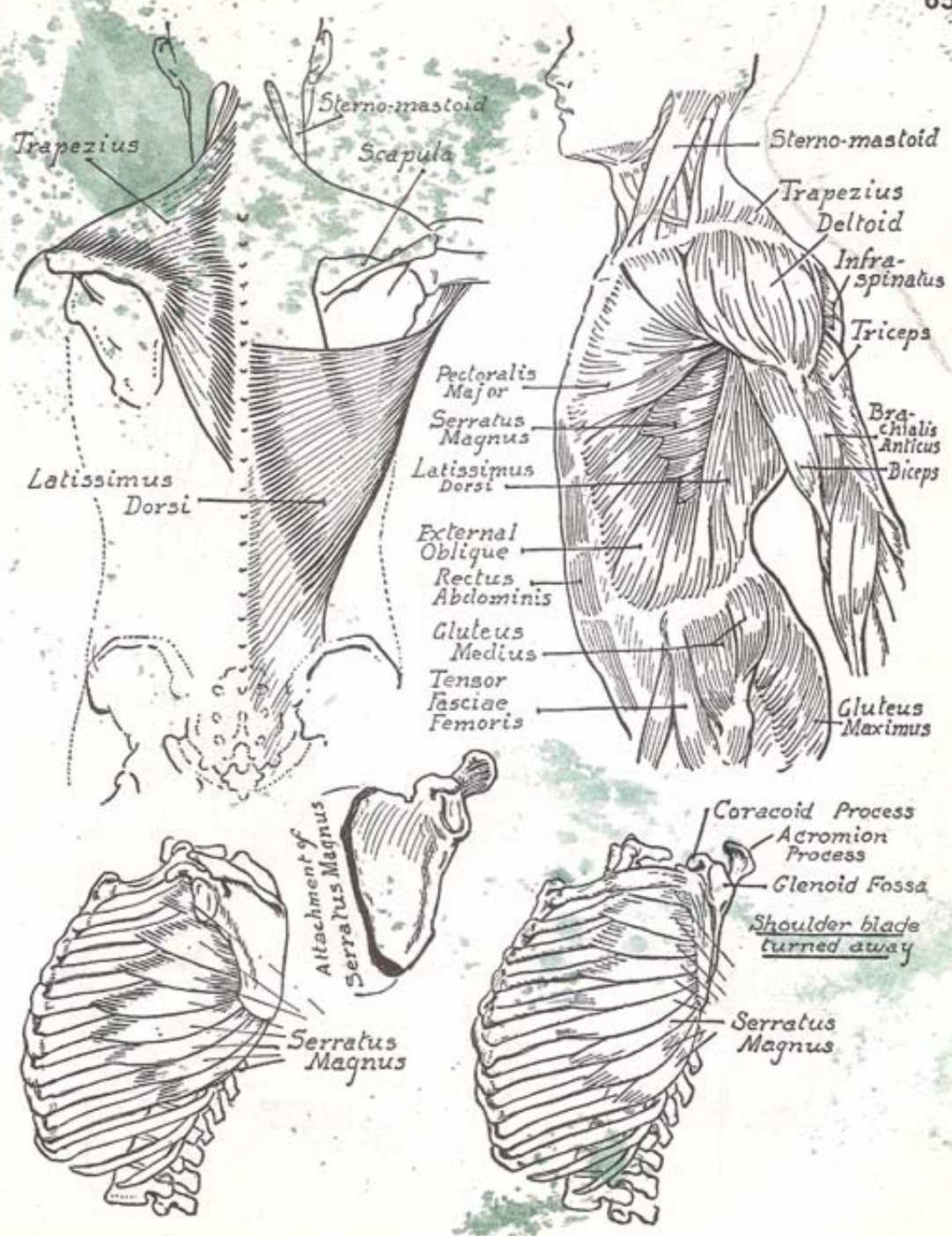


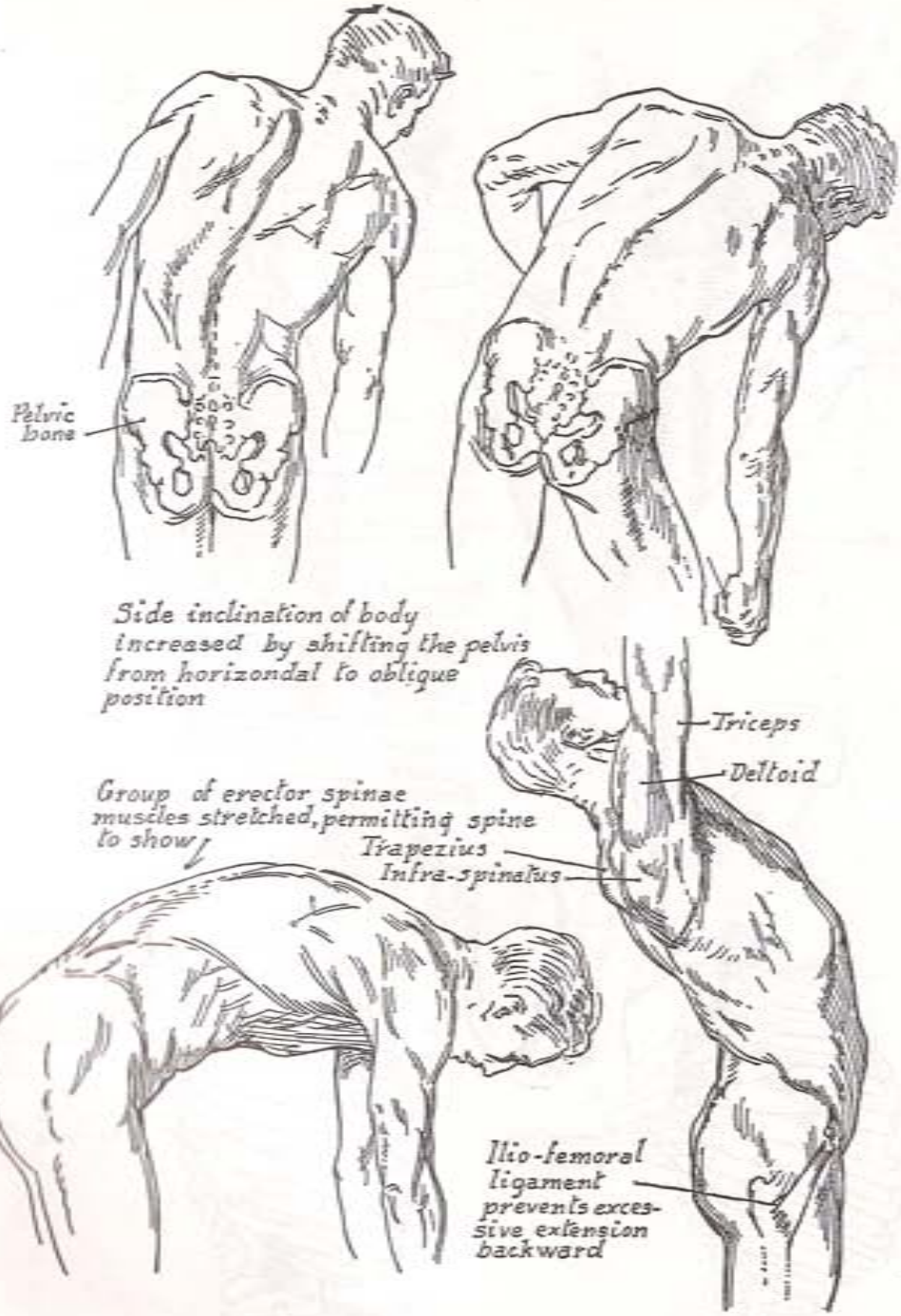


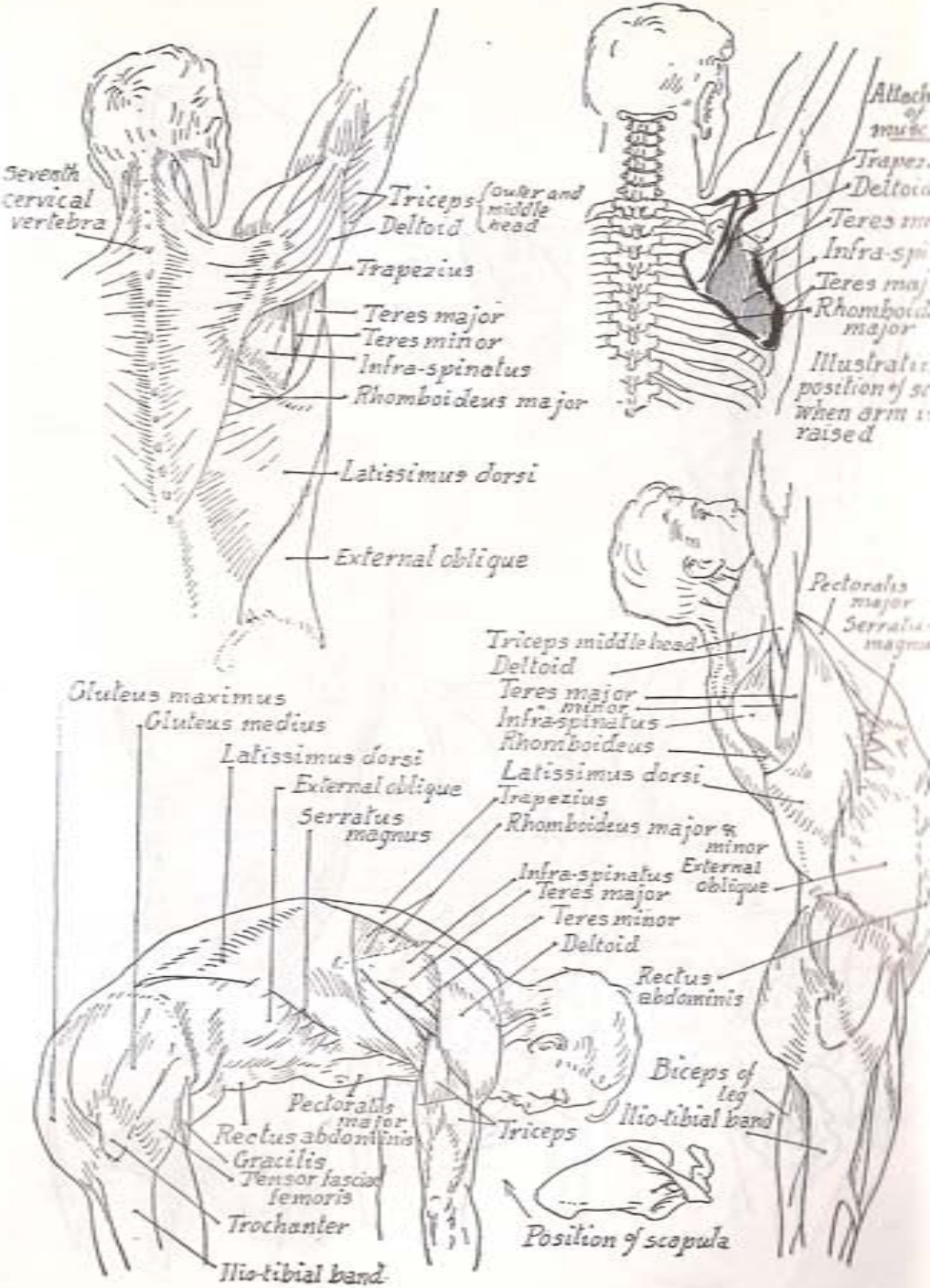
Studies of Expression



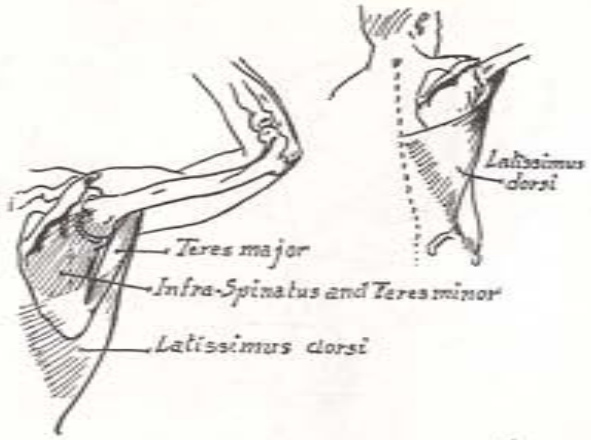
PART IV
THE TORSO

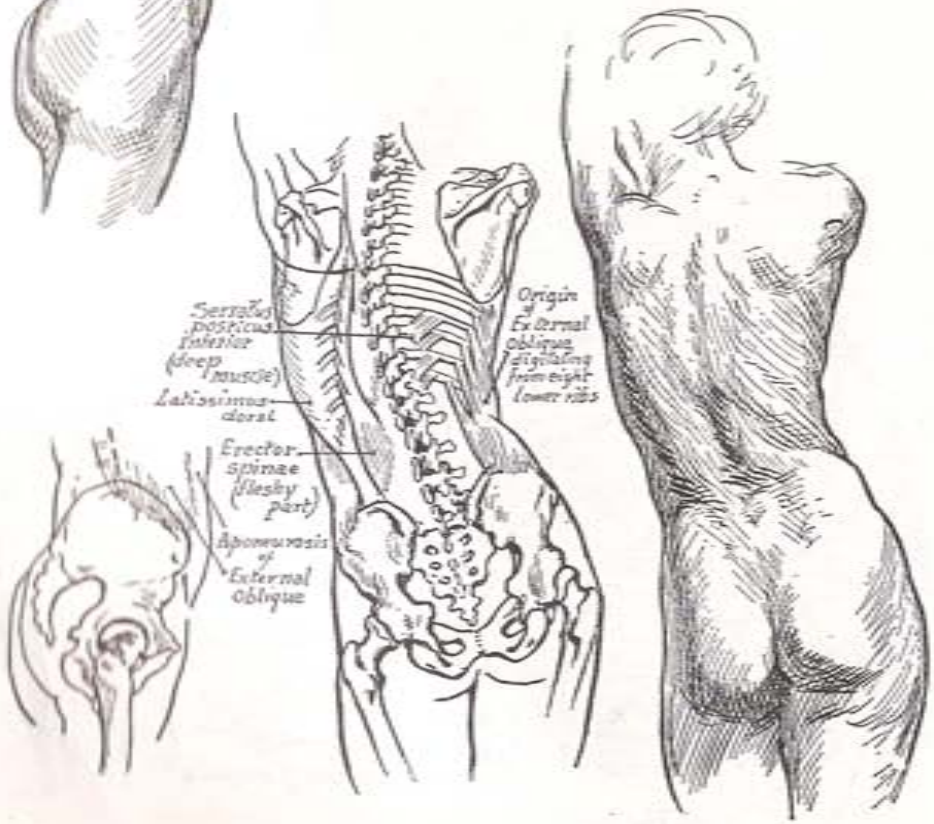

Trapezius
Sterno-mastoid
Scapula
Latissimus Dorsi
Sterno-mastoid
Trapezius
Deltoid
Infra-spinatus
Triceps
Pectoralis Major
Serratus Magnus
Latissimus Dorsi
External Oblique
Rectus Abdominis
Gluteus Medius
Tensor Fasciae Femoris
Brachialis Anticus
Biceps
Gluteus Maximus
Attachment of Serratus Magnus
Serratus Magnus
Coracoid Process
Acromion Process
Glenoid Fossa
Shoulder blade turned away
Serratus Magnus

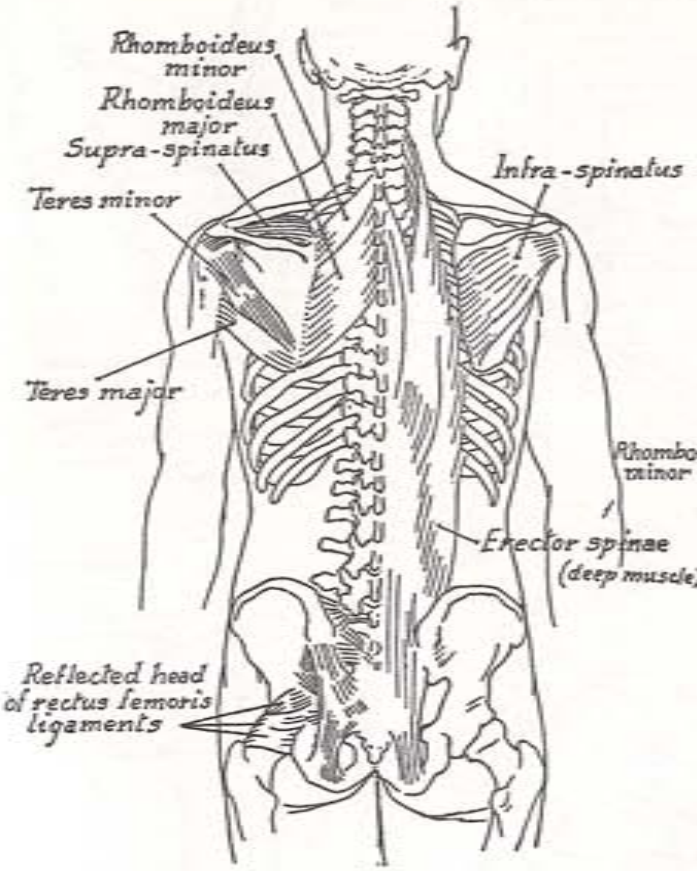

Pelvic bone
Side inclination of body increased by shifting the pelvis from horizondal to oblique position
Triceps
Deltoid
Group of erector spinae muscles stretched, permitting spine to show
Trapezius
Infra-spinatus
Ilio-femoral ligament prevents excessive extension backward

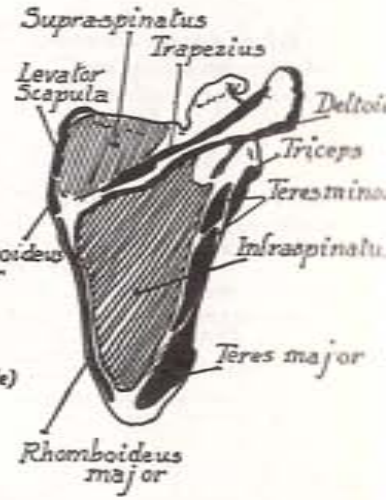

Seventh cervical vertebra
Triceps (outer and middle head)
Deltoid
Trapezius
Teres major
Teres minor
Infra-spinatus
Rhomboideus major
Latissimus dorsi
External oblique
Gluteus maximus
Gluteus medius
Latissimus dorsi
External oblique
Serratus magnus
Pectoralis major
Rectus abdominis
Gracilis
Tensor fascia femoris
Trochanter
Ilio-tibial band
Triceps middle head
Deltoid
Teres major
Teres minor
Infra-spinatus
Rhomboideus
Latissimus dorsi
Trapezius
Rhomboideus major & minor
Infra-spinatus
Teres major
Teres minor
Deltoid
External oblique
Rectus abdominis
Biceps of leg
Ilio-tibial band
Triceps
Position of scapula

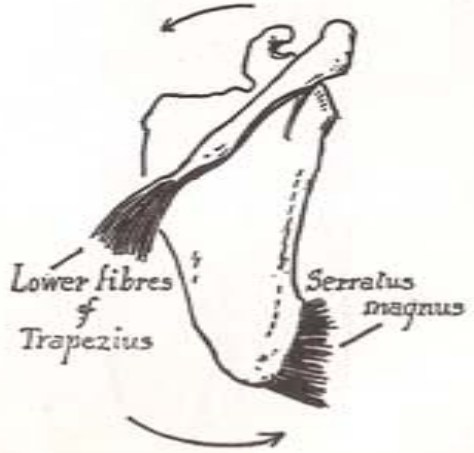


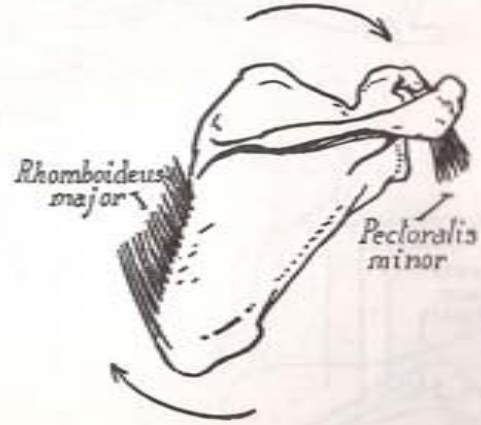

Latissimus dorsi
Teres major
Infra-Spinatus and Teres minor
Latissimus dorsi

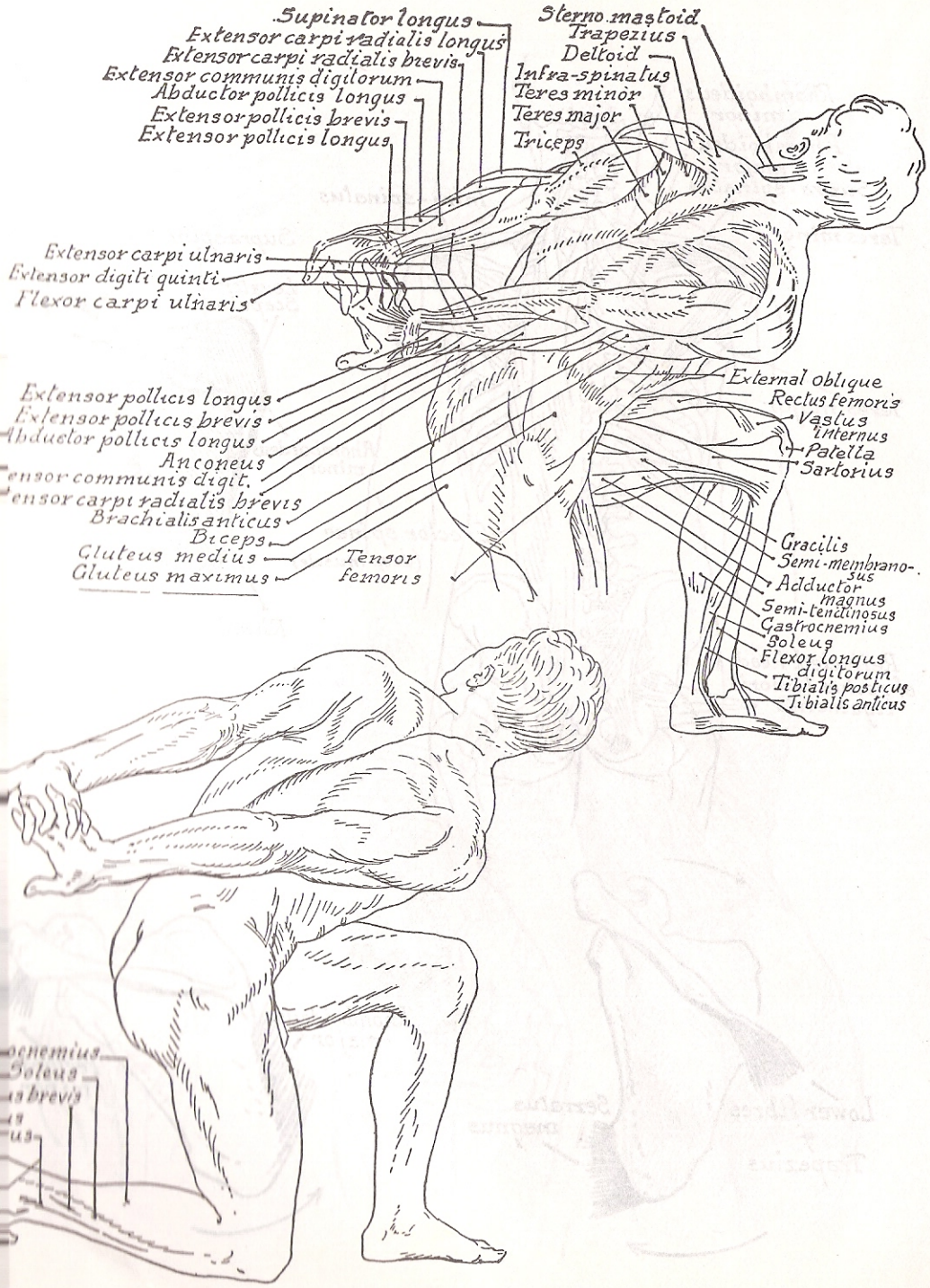

Serratus posticus inferior (deep muscle)
Latissimus dorsi
Erector spinae (fleshy part)
Aponeurosis of External Oblique
Origin of External Oblique digitating from eight lower ribs

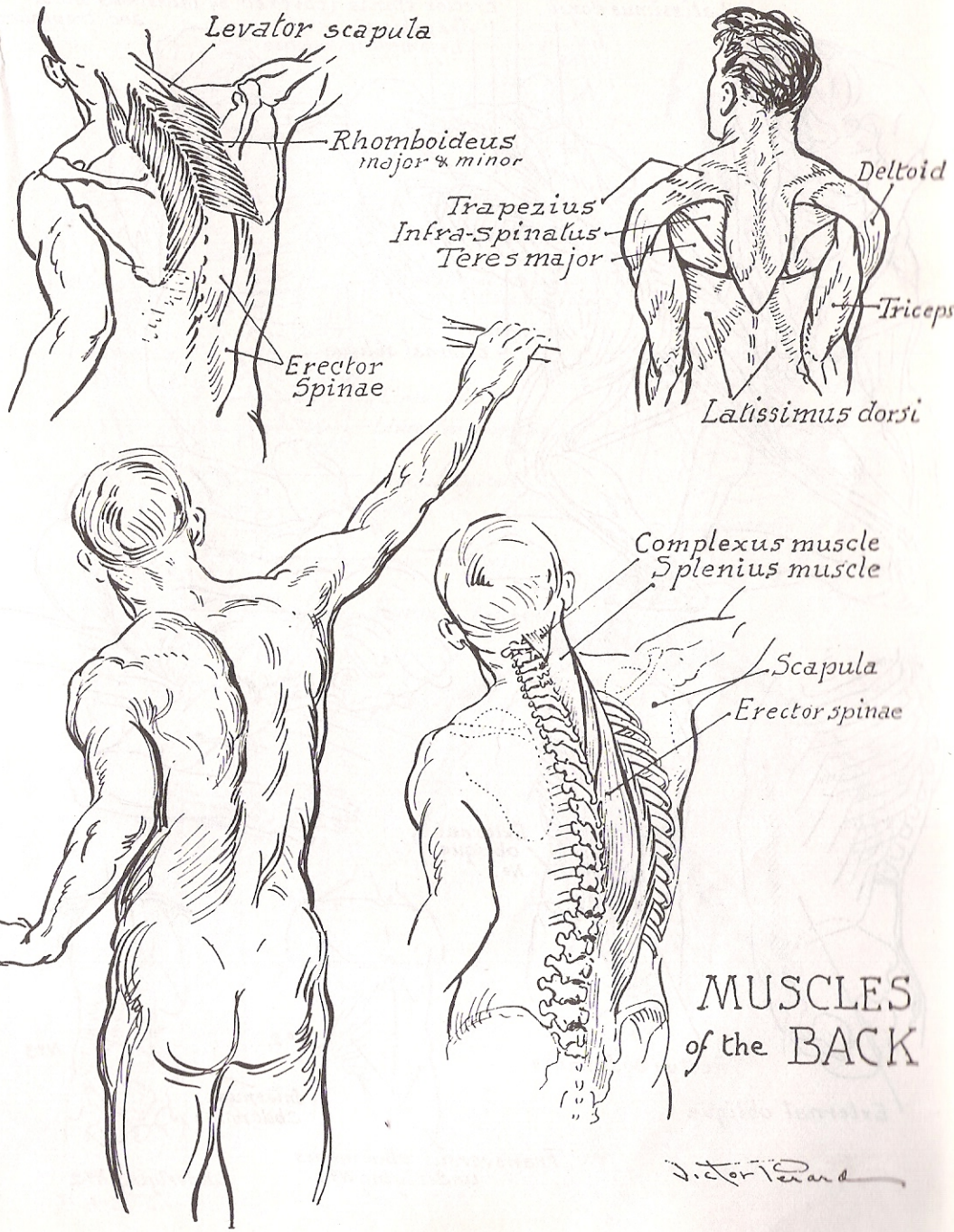

Rhomboideus minor
Rhomboideus major
Supra-spinatus
Infra-spinatus
Teres minor
Teres major
Erector spinae (deep muscle)
Reflected head of rectus femoris ligaments


Supra-spinatus
Trapezius
Levator Scapula
Triceps
Rhomboideus minor
Teres major
Rhomboideus major


Lower fibres of Trapezius
Serratus magnus

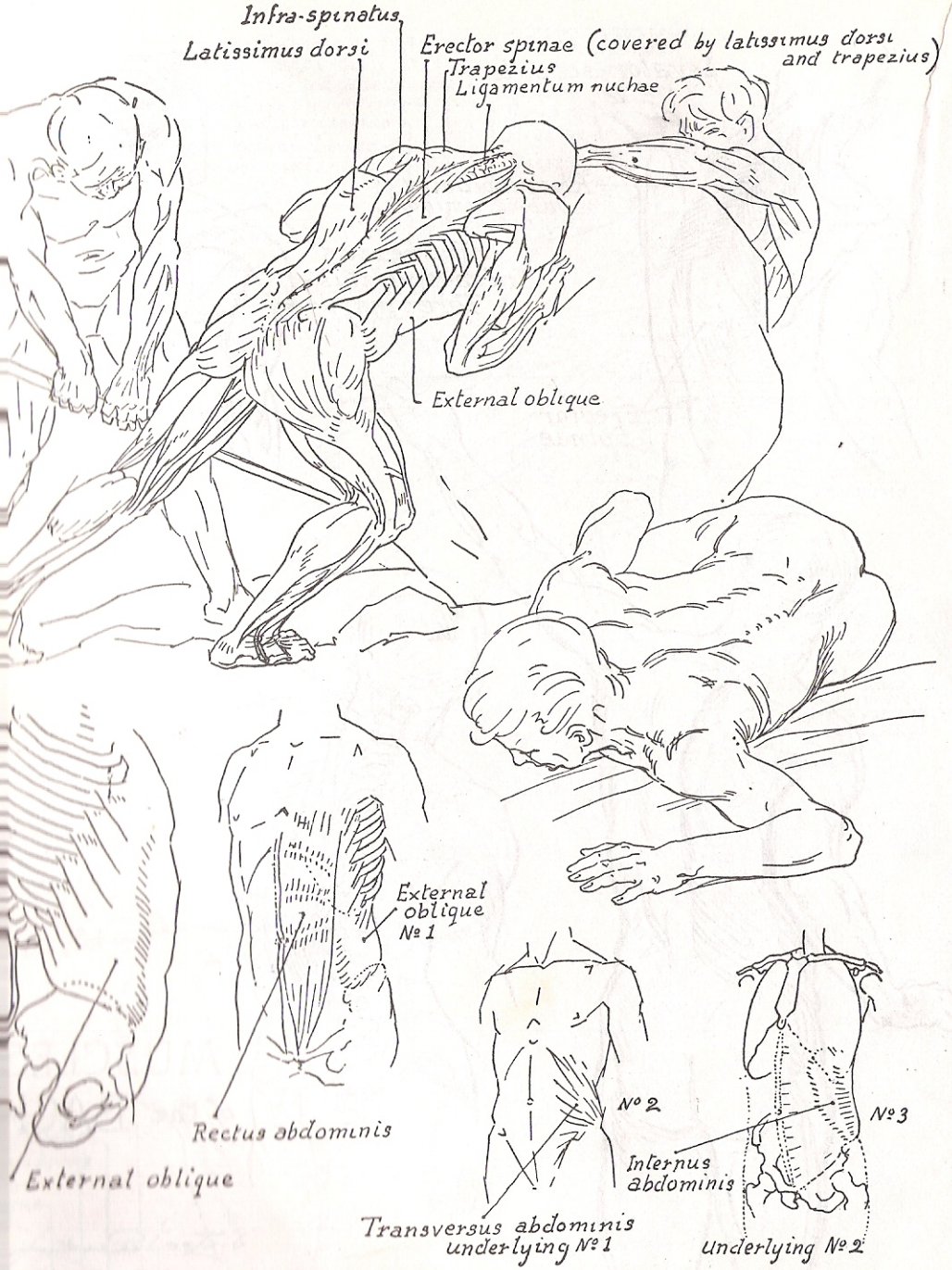

Rhomboideus major
Pectoralis minor

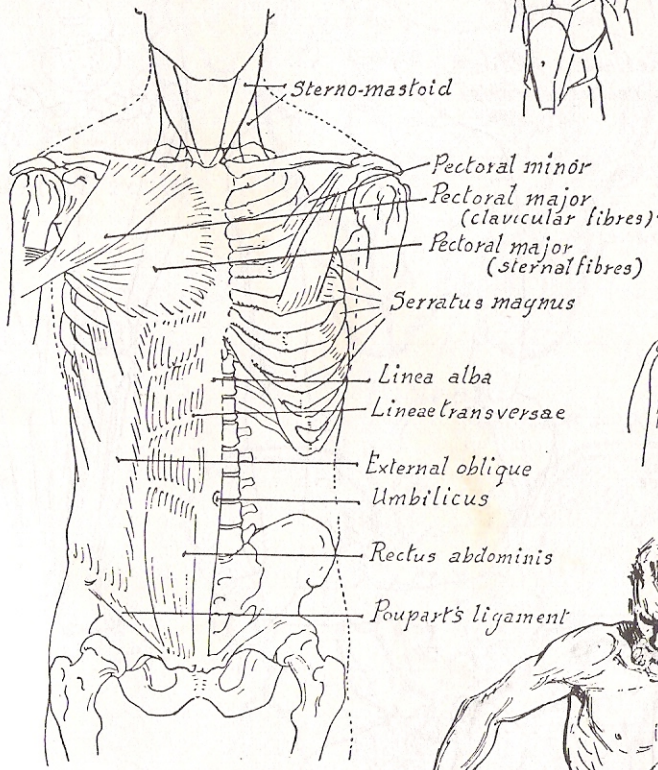


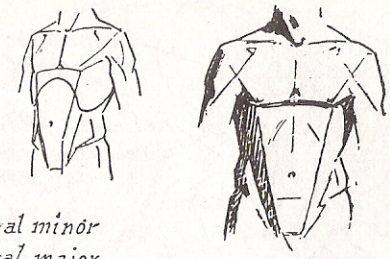


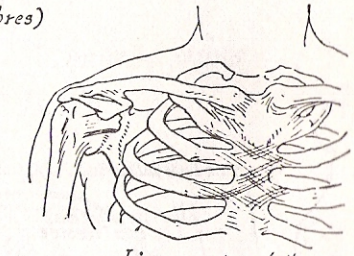
MUSCLES of the BACK

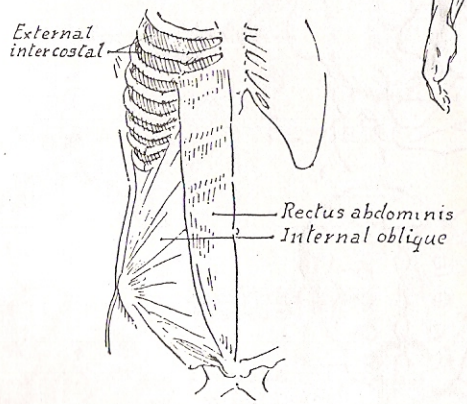
Victor Perard













Victor Perard

erior superior
liac spine
portion of
nnominatum
tion of
nominatum
bulum
or head of femur

bis

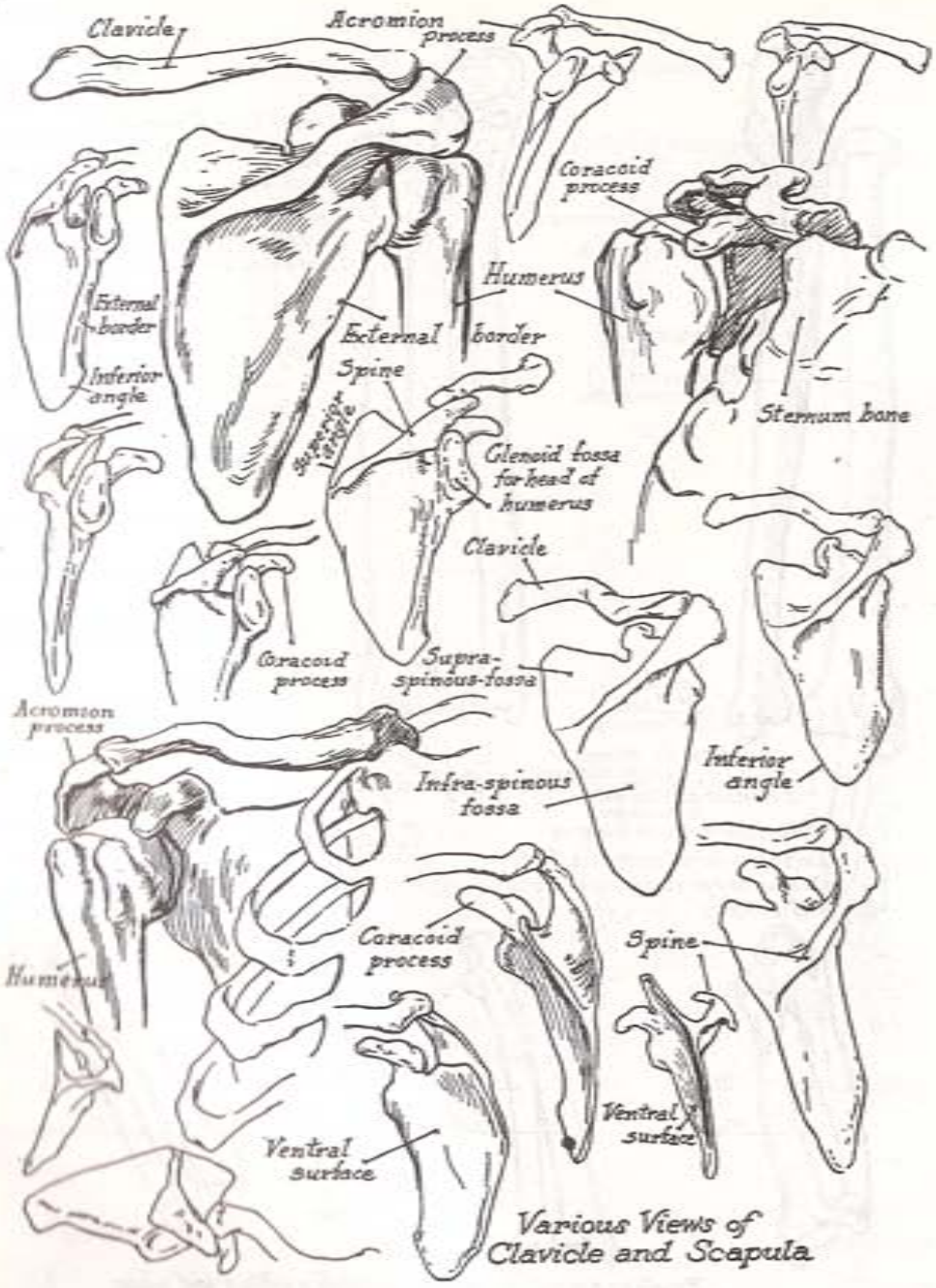
erior superior
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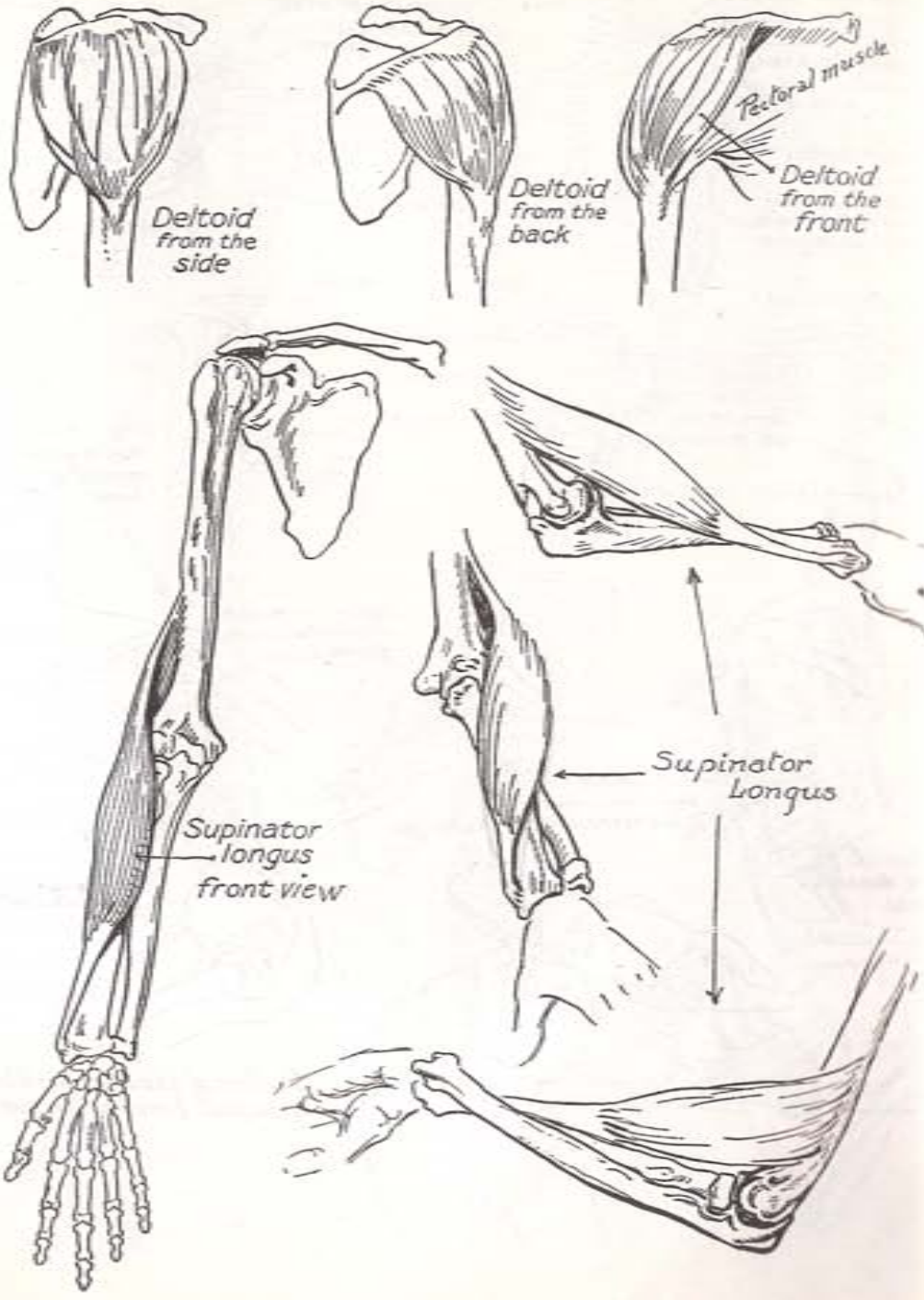
Male

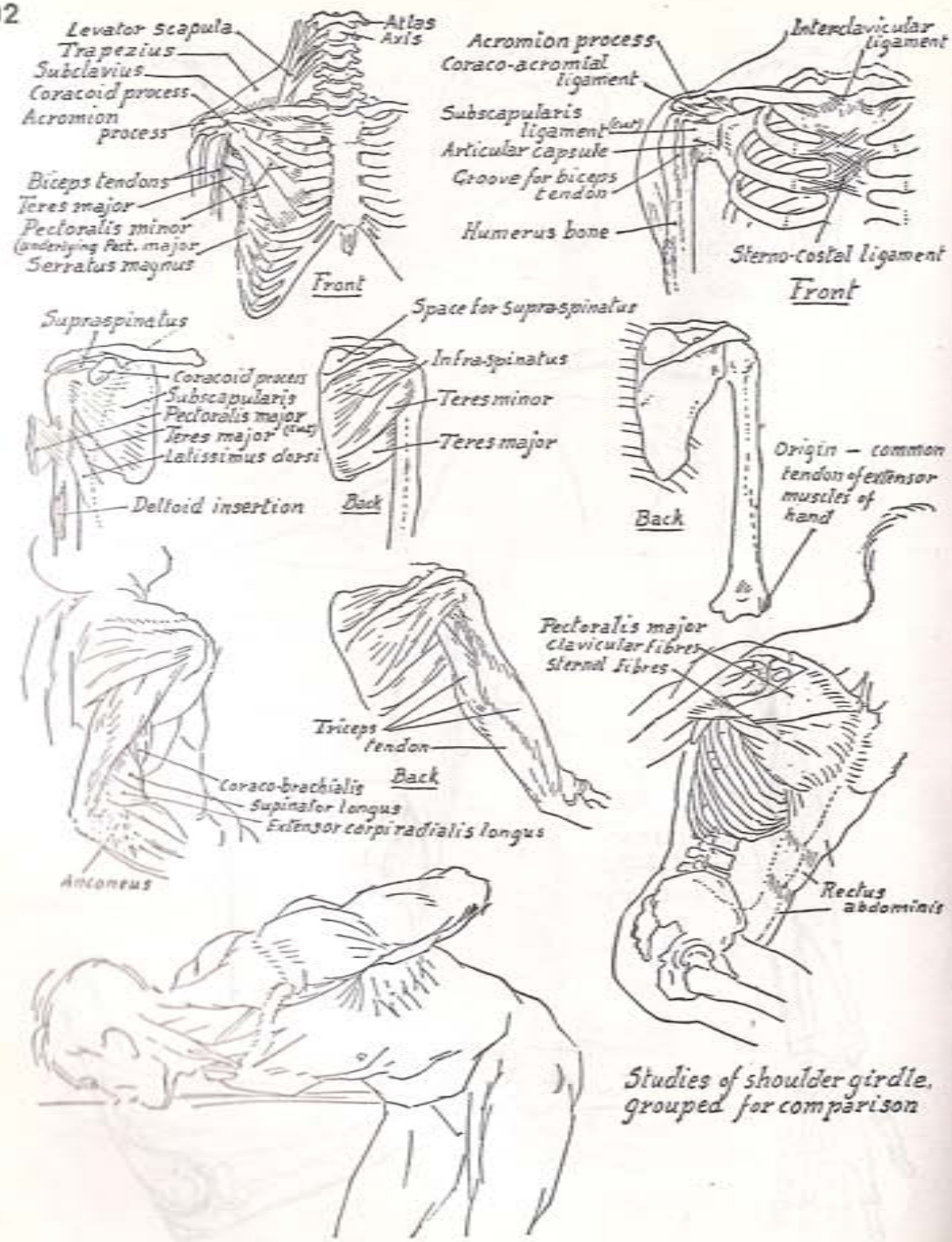


t and breadth

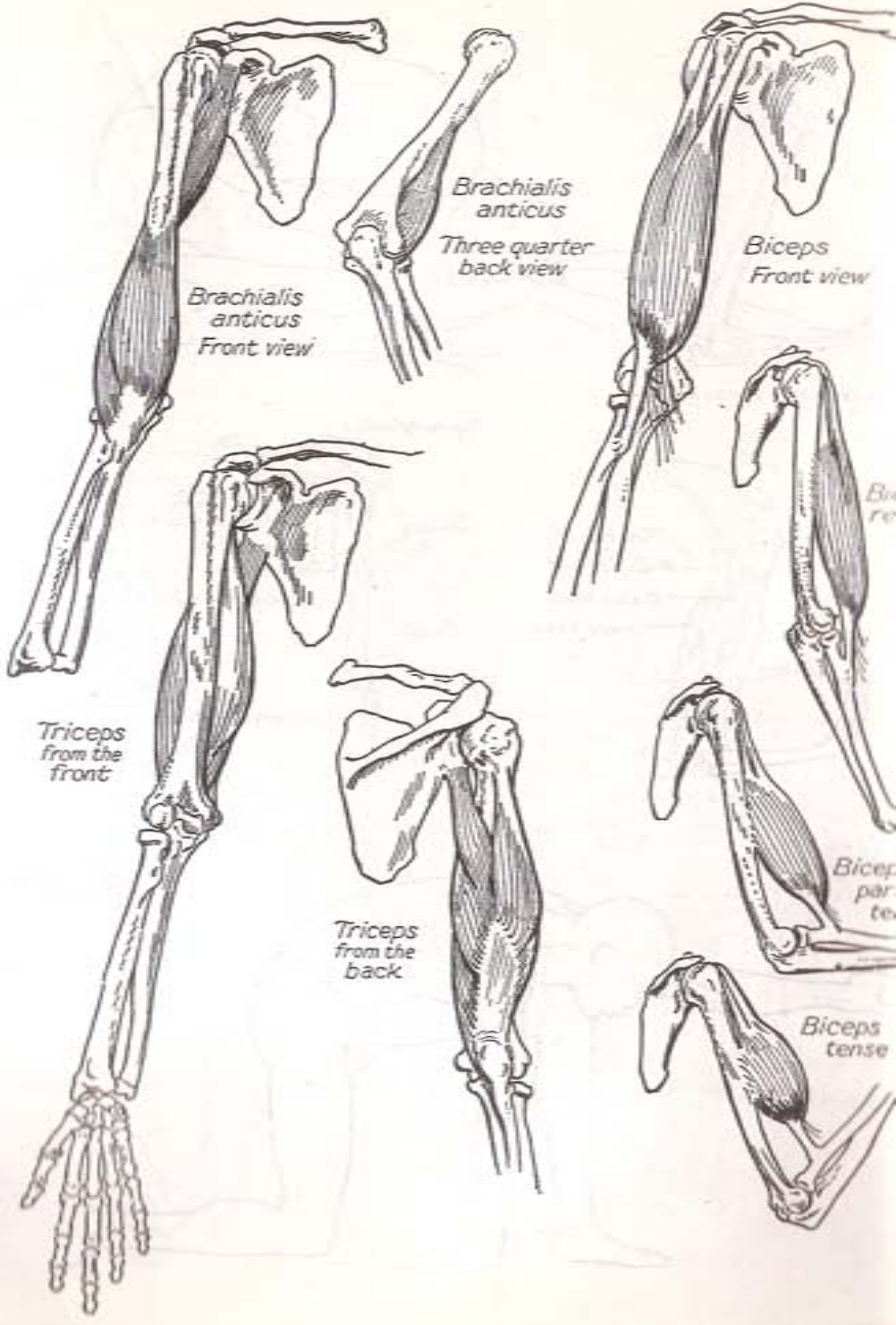


Various Views of Clavicle and Scapula





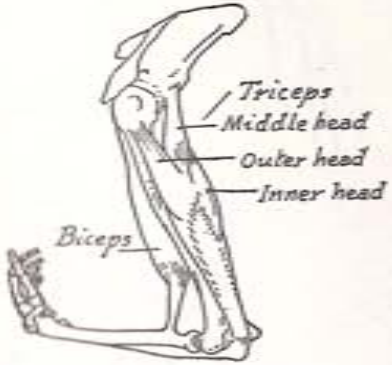
Studies of shoulder girdle, grouped for comparison

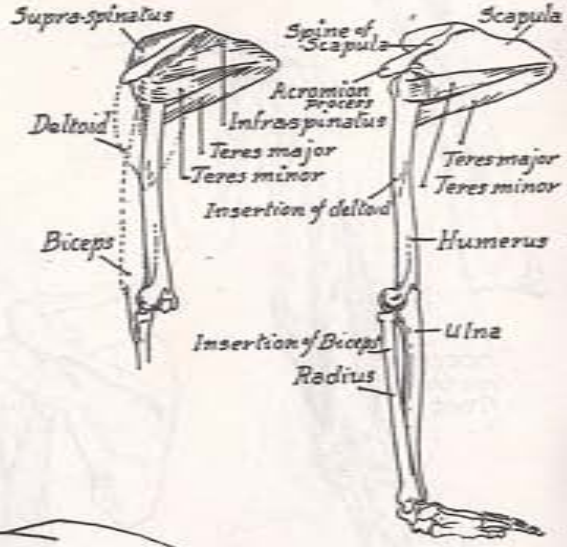


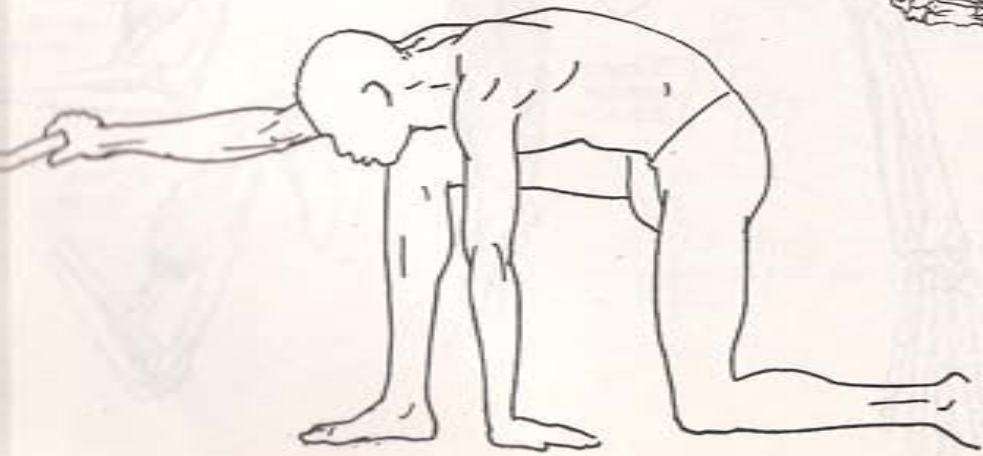


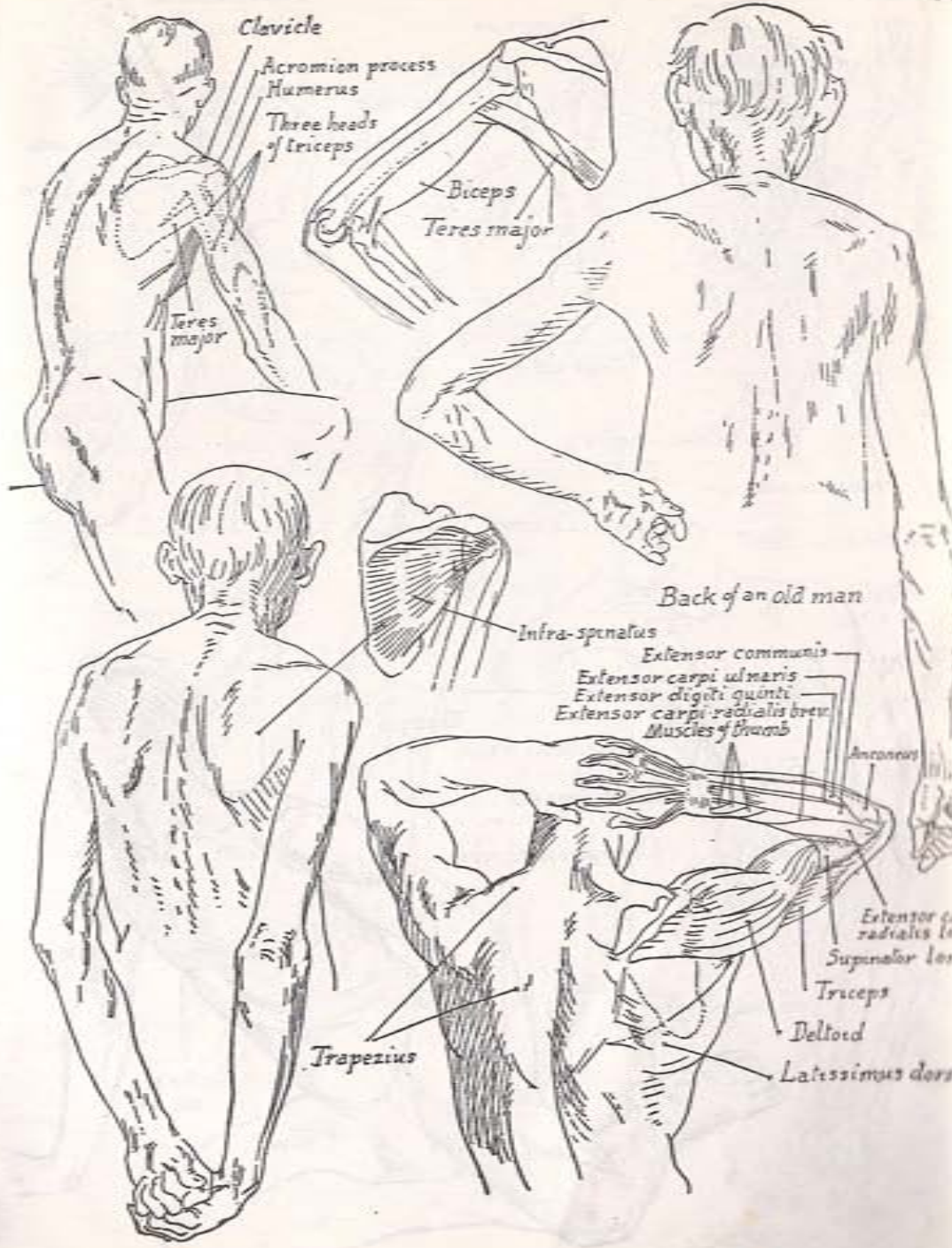
Supinator longus

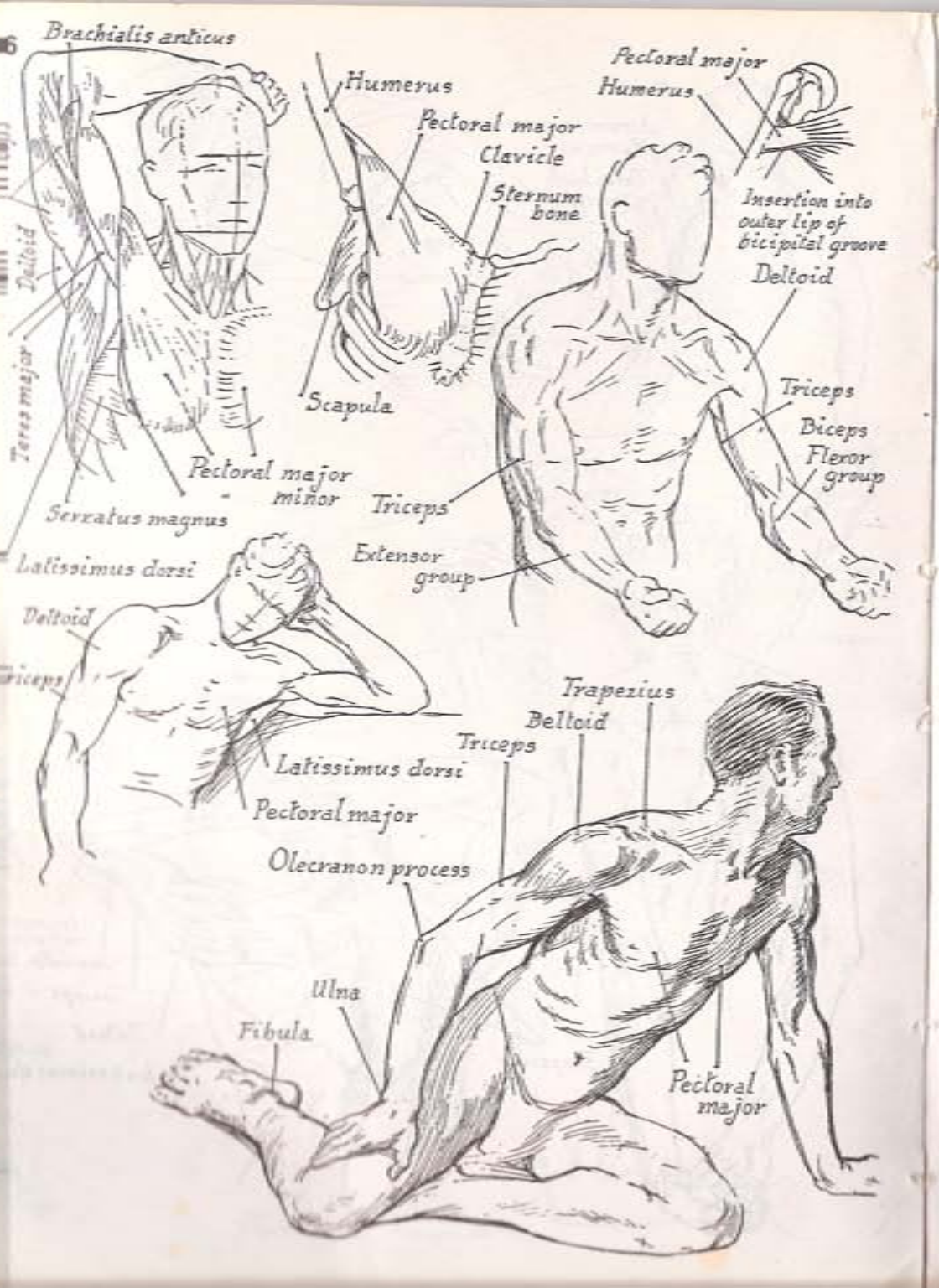


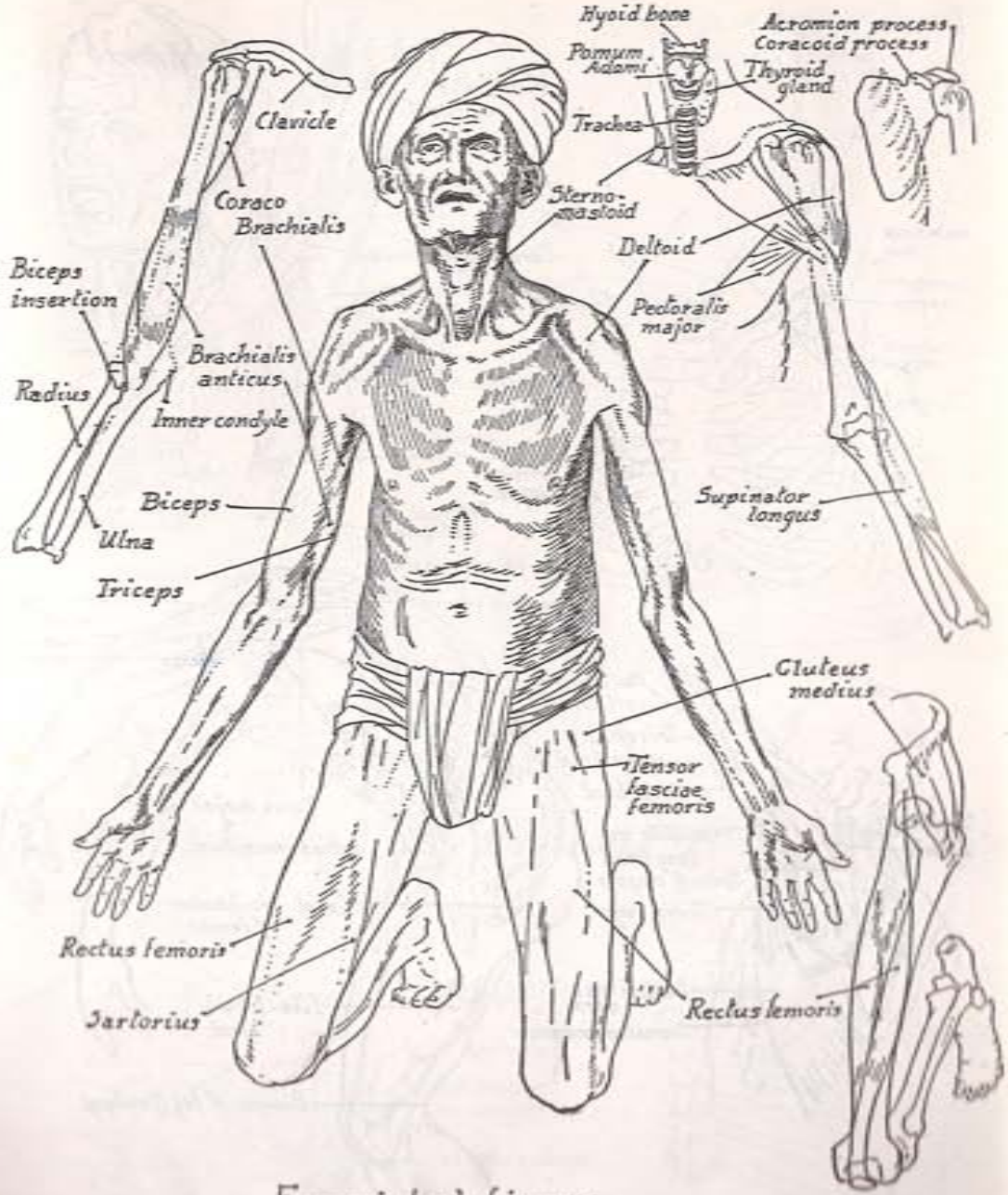




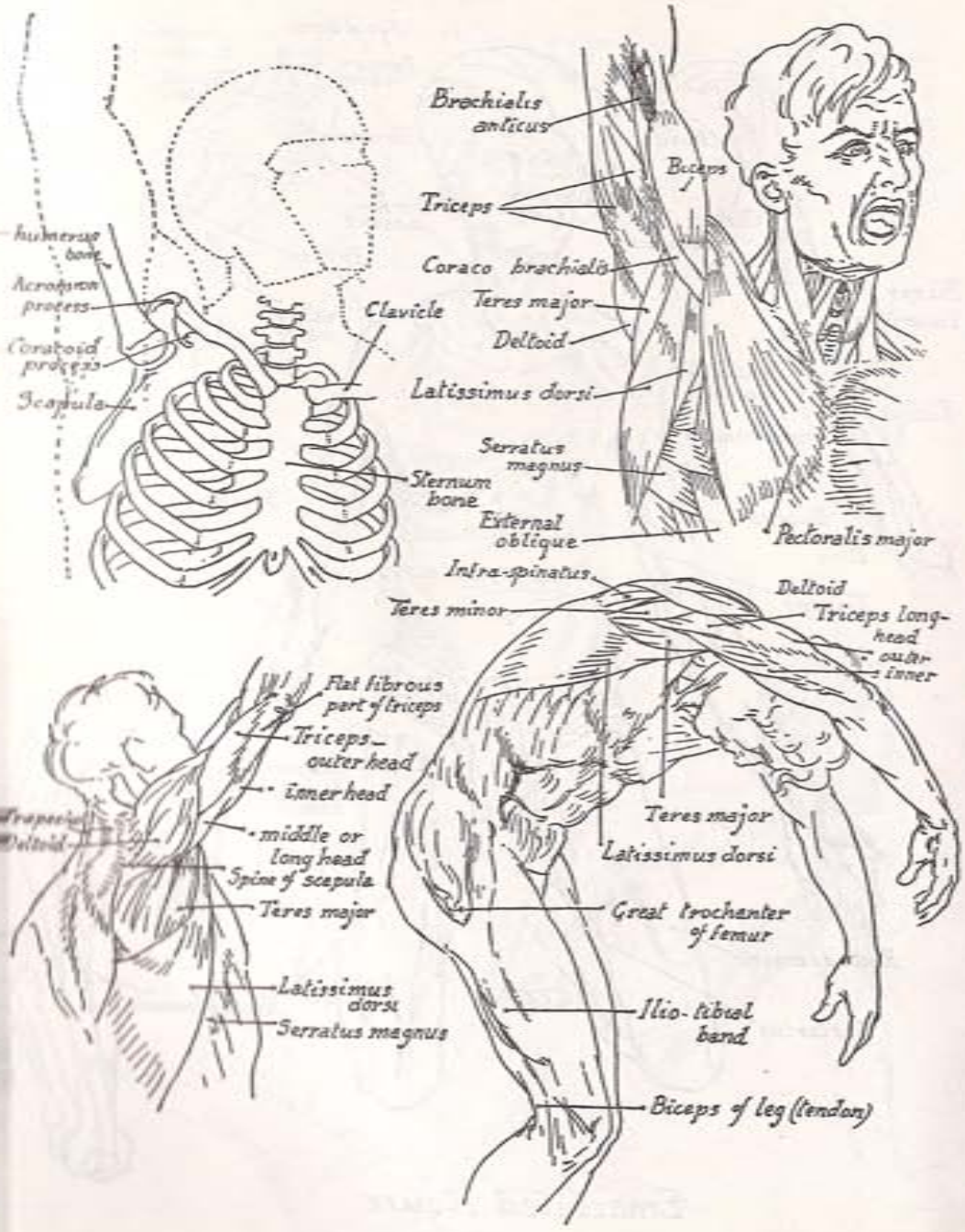


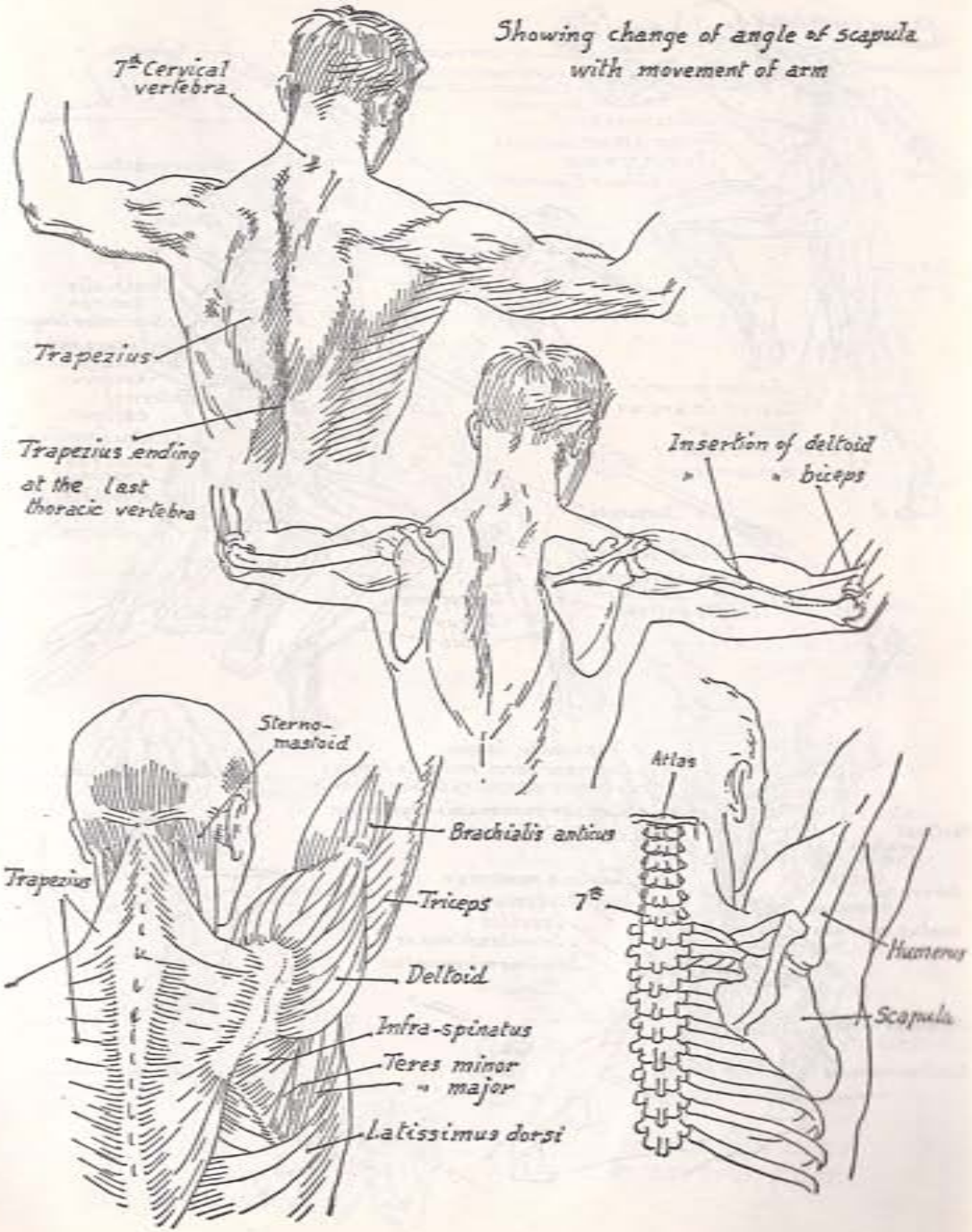


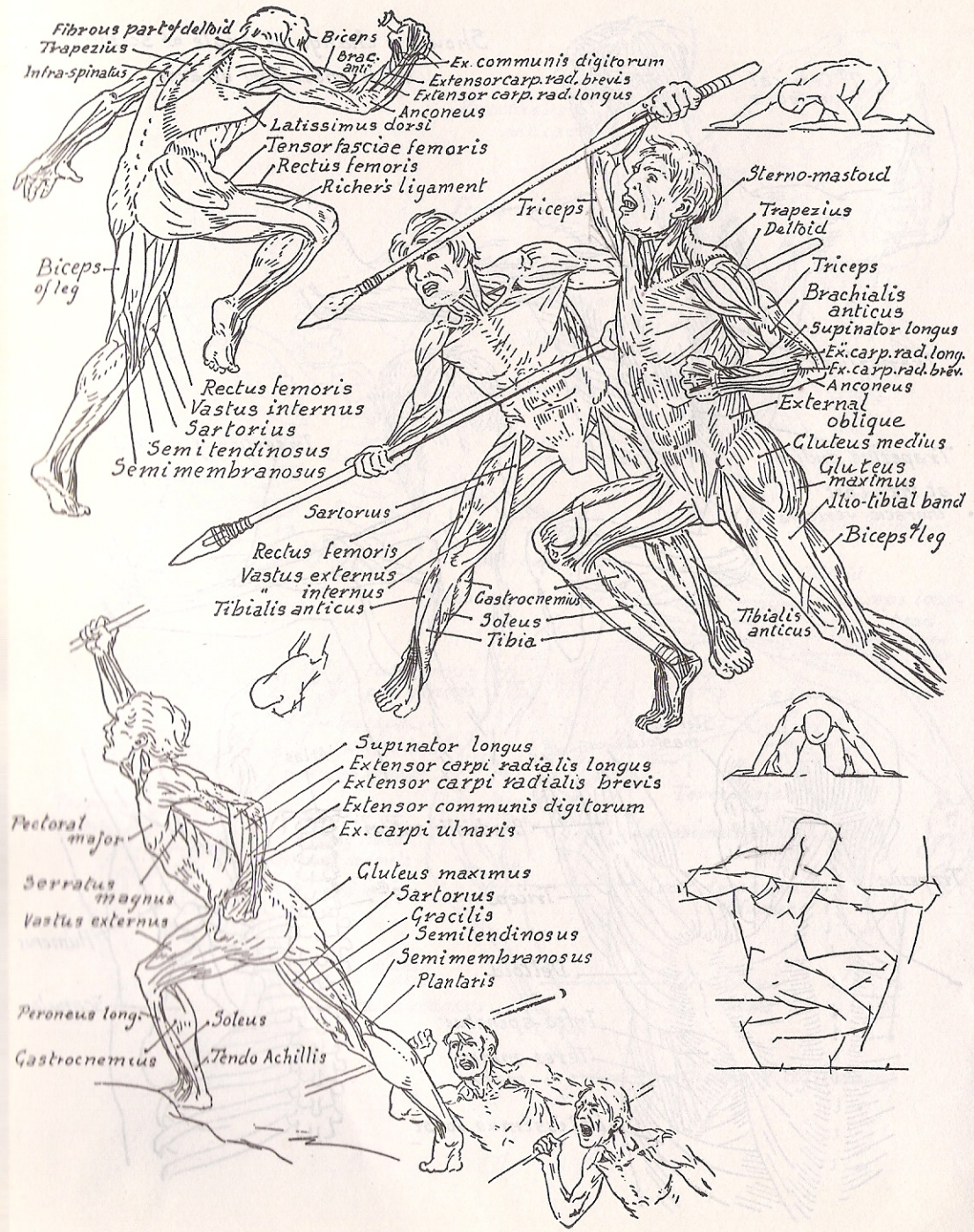


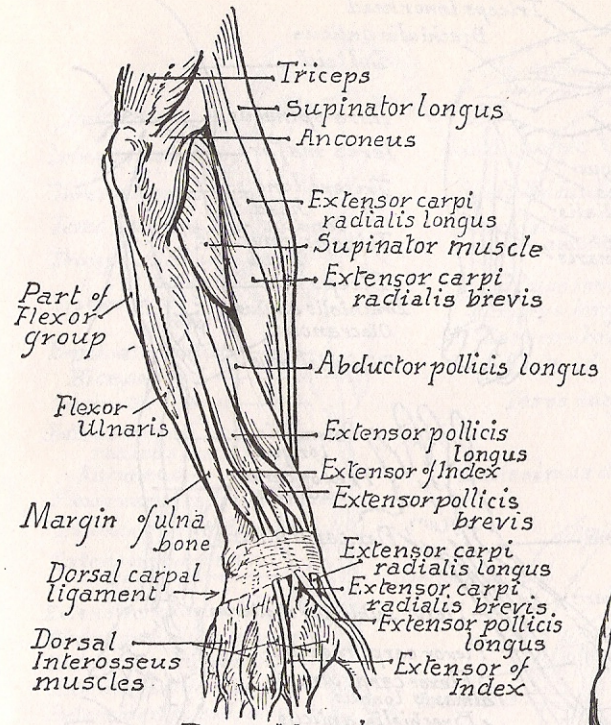


Emaciated figure

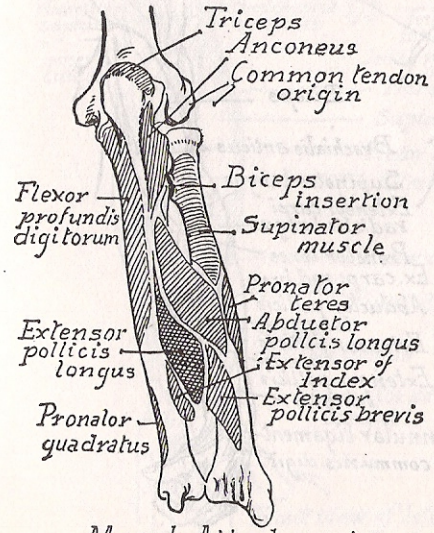

humerus bone
Acromion process
Coracoid process
Scapula
Clavicle
Sternum bone
Brachialis anticus
Biceps
Triceps
Coraco brachialis
Teres major
Deltoid
Latissimus dorsi
Serratus magnus
External oblique
Pectoralis major
Infra-spinatus
Teres minor
Deltoid
Triceps long-head
" outer
" inner
Flat fibrous part of triceps
Triceps—outer head
" inner head
" middle or long head
Spine of scapula
Teres major
Latissimus dorsi
Serratus magnus
Teres major
Latissimus dorsi
Great trochanter of femur
Ilio-tibial band
Biceps of leg (tendon)


Showing change of angle of scapula with movement of arm
7th Cervical vertebra
Trapezius
Trapezius ending at the last thoracic vertebra
Insertion of deltoid
" biceps
Sterno-mastoid
Trapezius
Brachialis anticus
Triceps
Deltoid
Infra-spinatus
Teres minor
" major
Latissimus dorsi
Atlas
7th
Humerus
Scapula

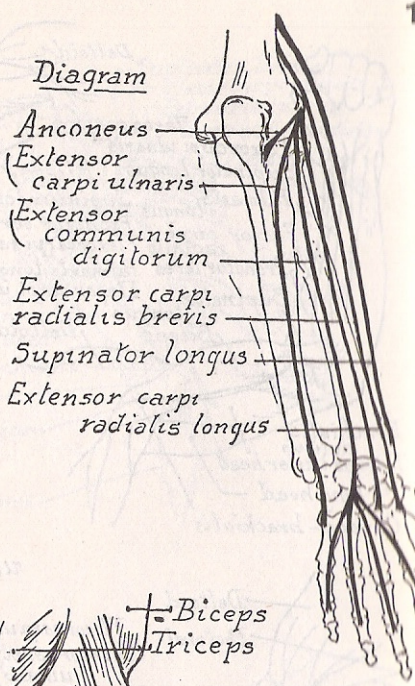


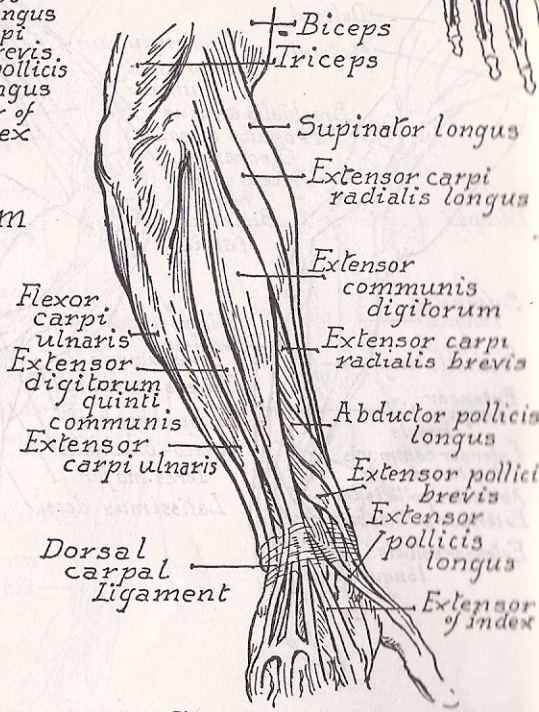


Deep Muscles
Dorsal side of Arm

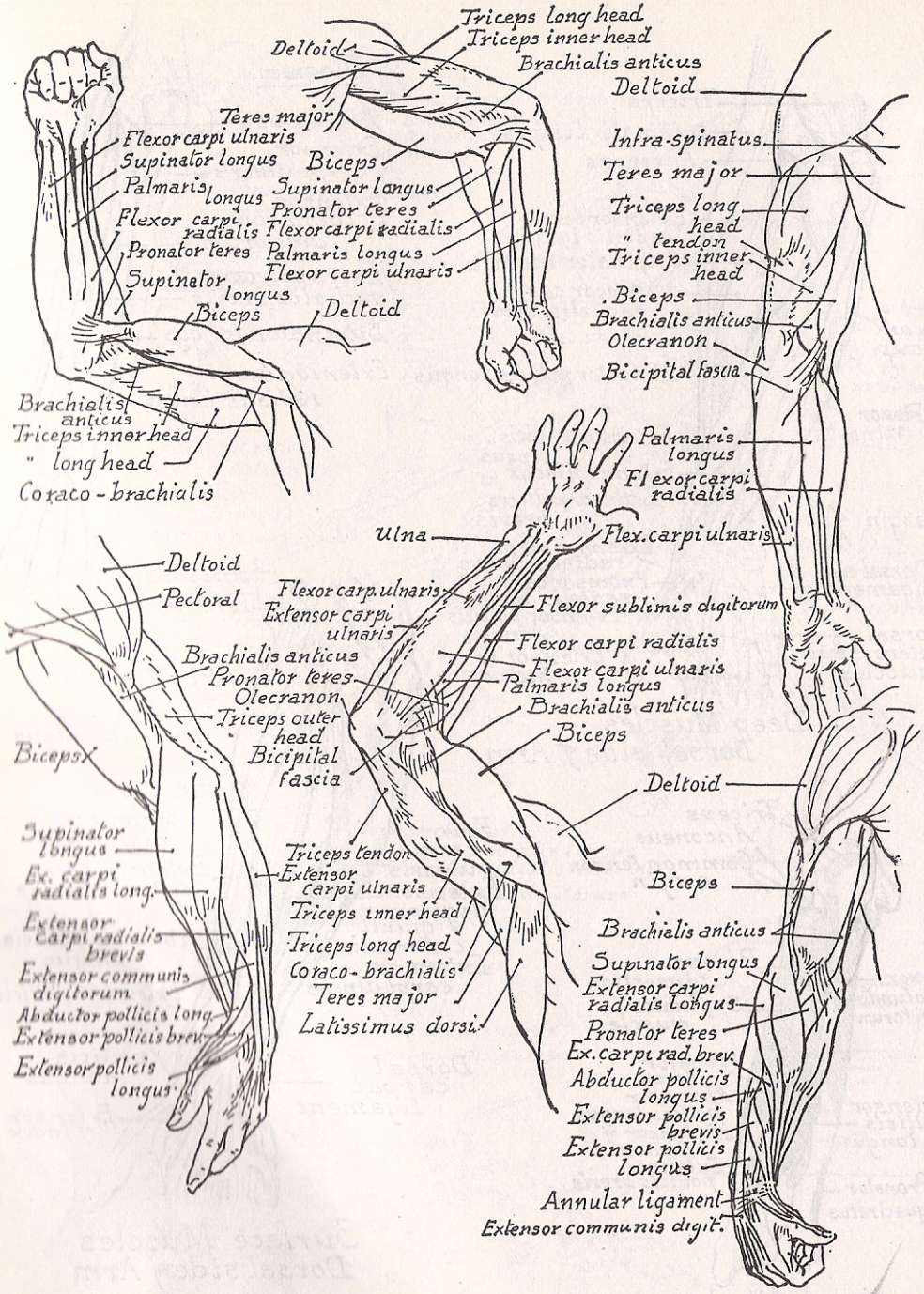


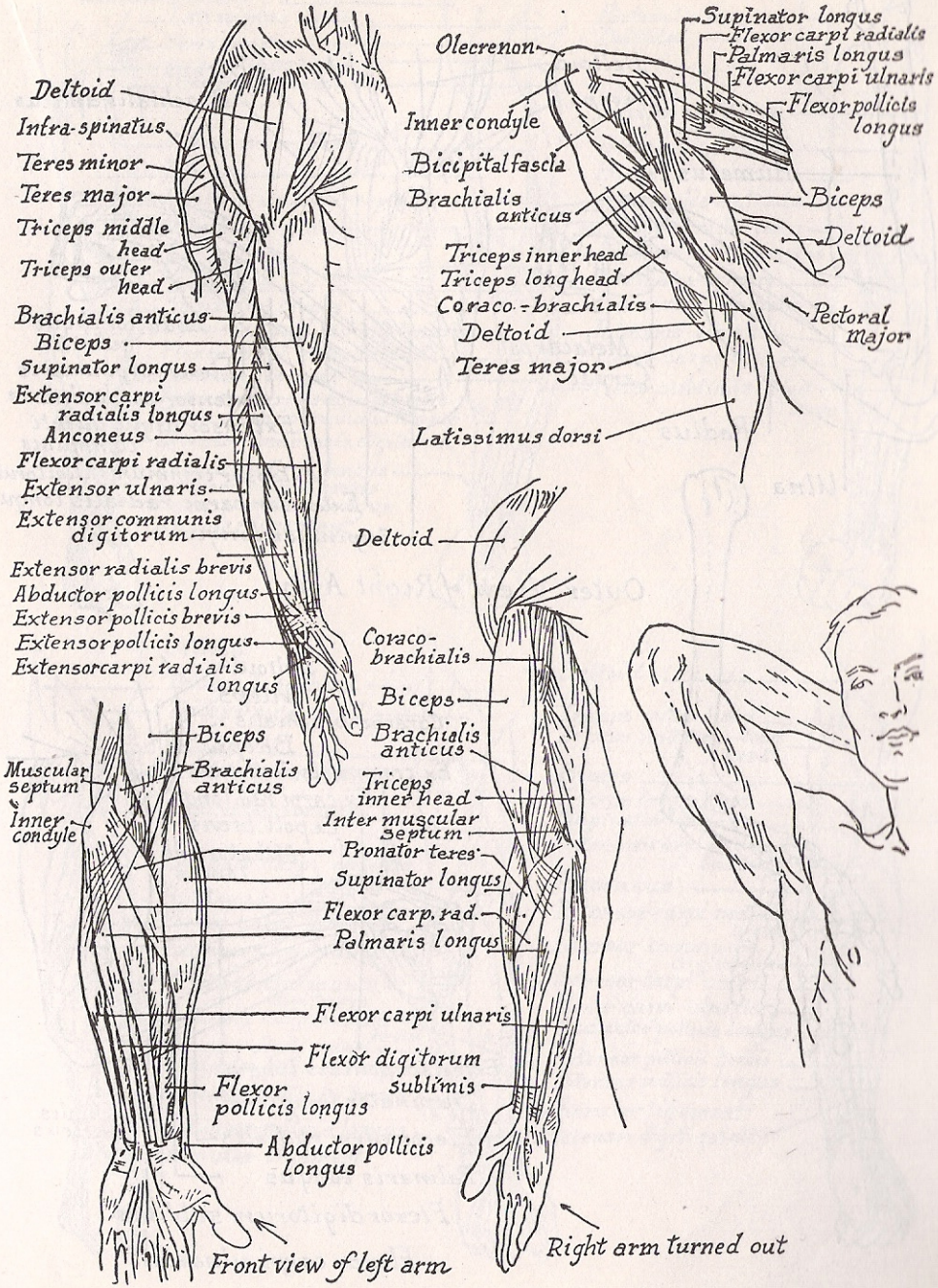
Muscle Attachments

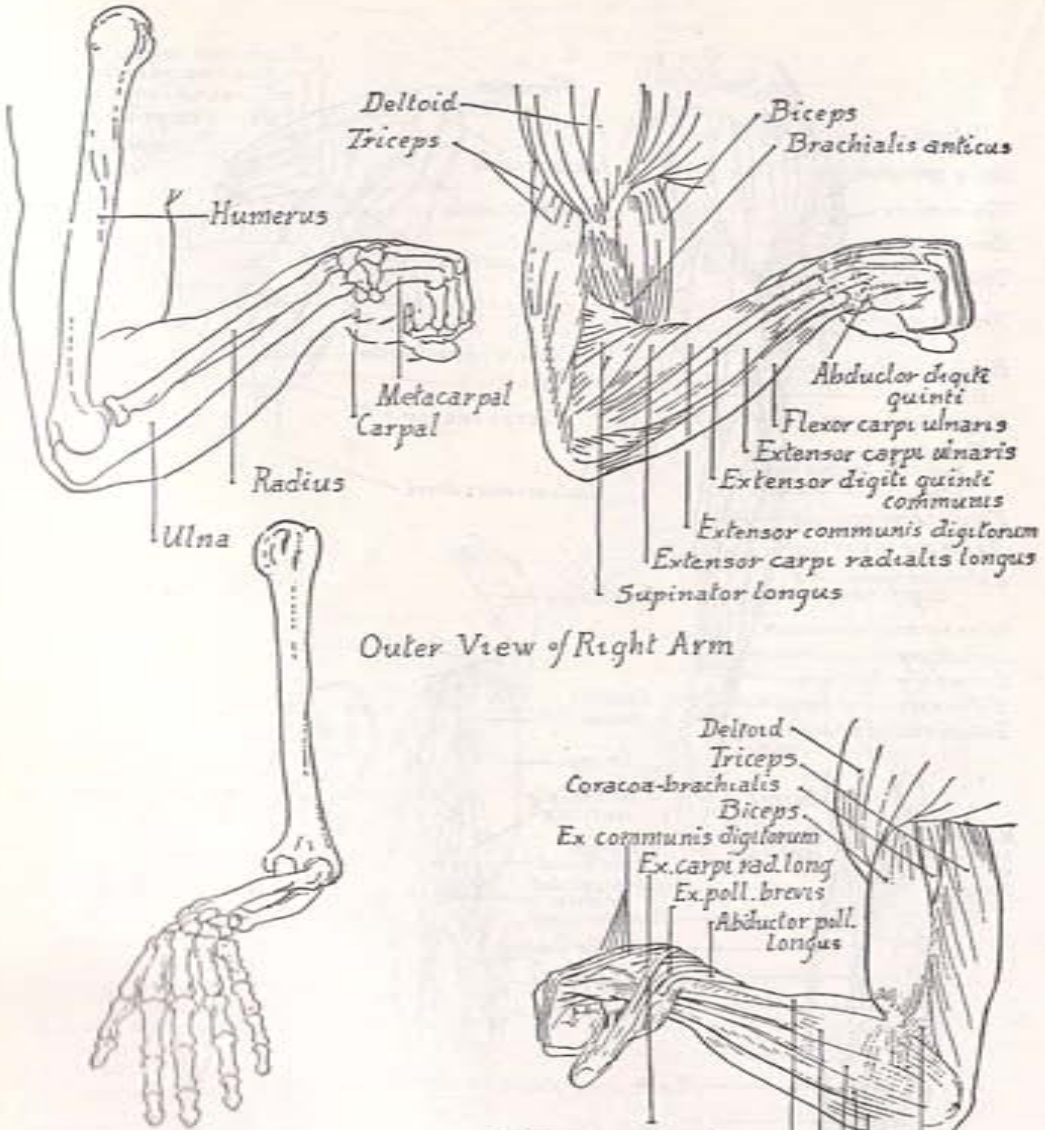




Surface Muscles
Dorsal side of Arm


Triceps long head
Triceps inner head
Deltoid
Brachialis anticus
Teres major
Flexor carpi ulnaris
Supinator longus
Biceps
Palmaris longus
Supinator longus
Pronator teres
Flexor carpi radialis
Flexor carpi radialis
Palmaris longus
Pronator teres
Flexor carpi ulnaris
Supinator longus
Biceps
Deltoid
Brachialis anticus
Triceps inner head
" long head
Coraco-brachialis
Deltoid
Infra-spinatus
Teres major
Triceps long head
" tendon
Triceps inner head
Biceps
Brachialis anticus
Olecranon
Bicipital fascia
Palmaris longus
Flexor carpi radialis
Ulna
Flex. carpi ulnaris
Deltoid
Pectoral
Brachialis anticus
Pronator teres
Olecranon
Triceps outer head
Bicipital fascia
Biceps
Supinator longus
Ex. carpi radialis long.
Extensor carpi radialis brevis
Extensor communis digitorum
Abductor pollicis long.
Extensor pollicis brev.
Extensor pollicis longus
Flexor carp. ulnaris
Extensor carpi ulnaris
Flexor sublimis digitorum
Flexor carpi radialis
Flexor carpi ulnaris
Palmaris longus
Brachialis anticus
Biceps
Triceps tendon
Extensor carpi ulnaris
Triceps inner head
Triceps long head
Coraco-brachialis
Teres major
Latissimus dorsi
Deltoid
Biceps
Brachialis anticus
Supinator longus
Extensor carpi radialis longus
Pronator teres
Ex. carpi rad. brev.
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Annular ligament
Extensor communis digit.

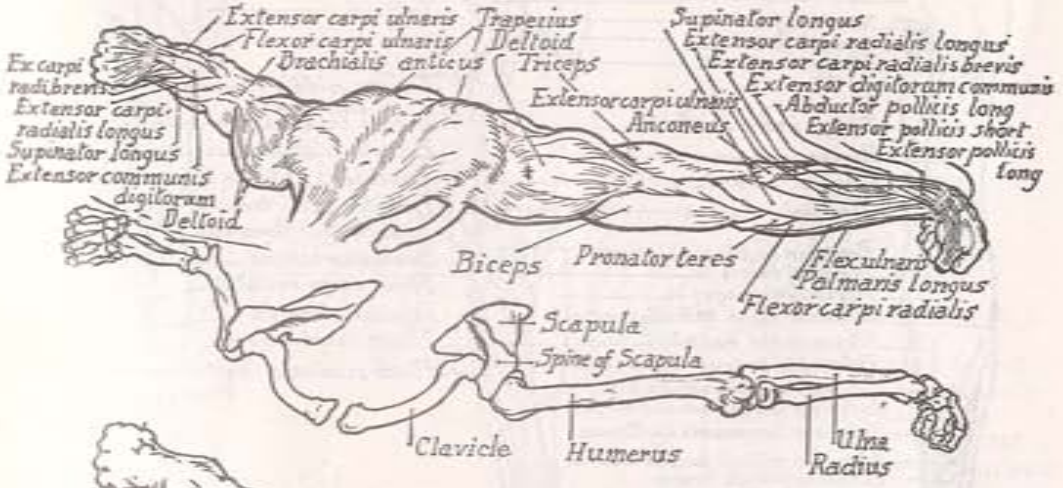

Deltoid
Infra-spinatus
Teres minor
Teres major
Triceps middle head
Triceps outer head
Brachialis anticus
Biceps
Supinator longus
Extensor carpi radialis longus
Anconeus
Flexor carpi radialis
Extensor ulnaris
Extensor communis digitorum
Extensor radialis brevis
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Extensorcarpi radialis longus
Biceps
Muscular septum
Brachialis anticus
Inner condyle
Front view of left arm
Olecrenon
Inner condyle
Bicipital fascia
Brachialis anticus
Triceps inner head
Triceps long head
Coraco-brachialis
Deltoid
Teres major
Latissimus dorsi
Supinator longus
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Flexor pollicis longus
Biceps
Deltoid
Pectoral major
Deltoid
Coraco-brachialis
Biceps
Brachialis anticus
Triceps inner head
Inter muscular septum
Pronator teres
Supinator longus
Flexor carp. rad.
Palmaris longus
Flexor carpi ulnaris
Flexor digitorum sublimis
Flexor pollicis longus
Abductor pollicis longus
Right arm turned out

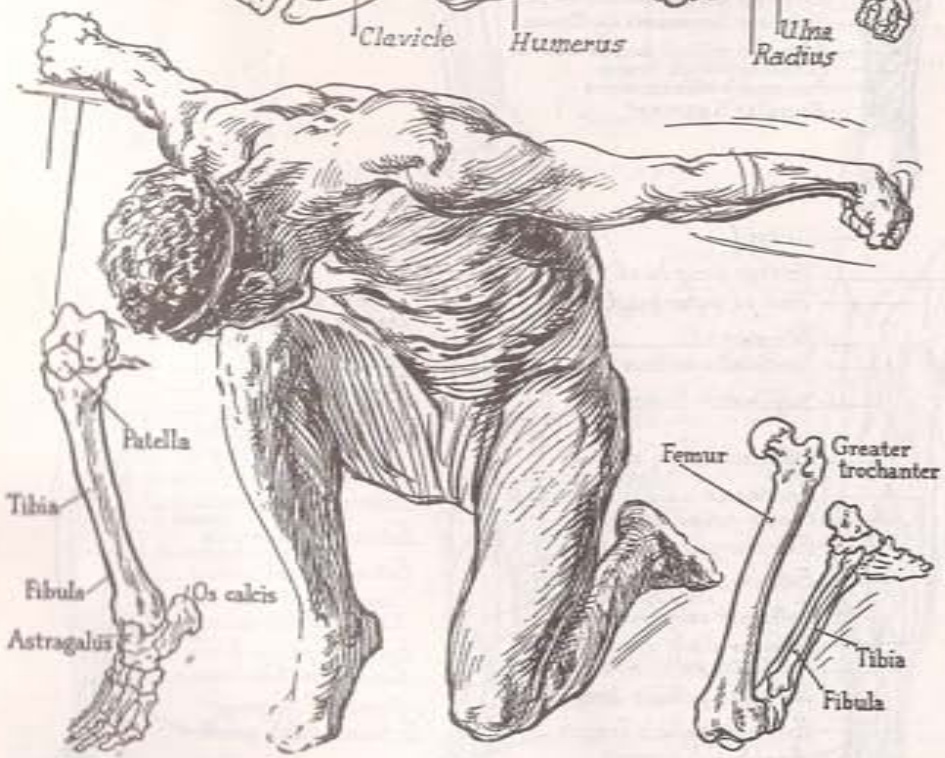


Outer View of Right Arm

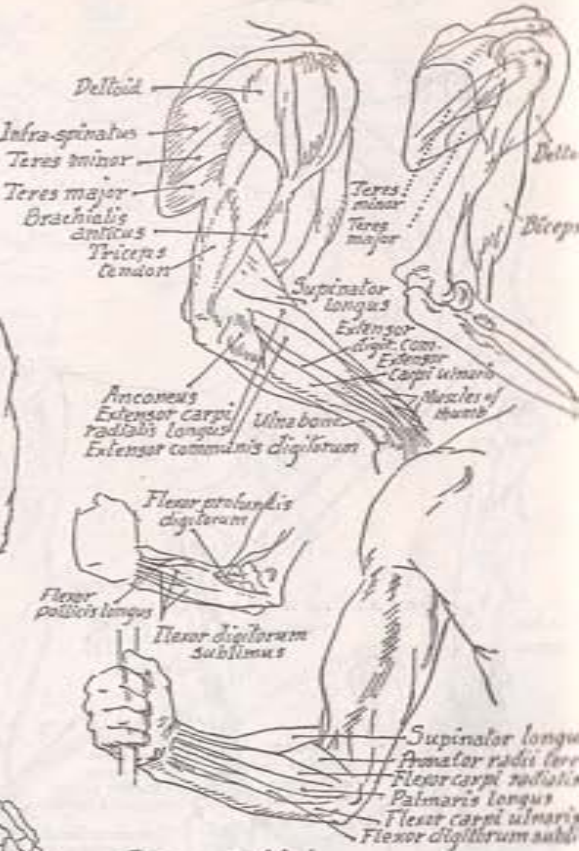
Inner view




Extensor carpi ulnaris
Flexor carpi ulnaris
Brachialis anticus
Trapezius
Deltoid
Triceps
Extensor carpi radialis brevis
Extensor carpi radialis longus
Supinator longus
Extensor communis digitorum
Deltoid
Extensor carpi ulnaris
Anconeus
Supinator longus
Extensor carpi radialis longus
Extensor carpi radialis brevis
Extensor digitorum communis
Abductor pollicis long
Extensor pollicis short
Extensor pollicis long
Biceps
Pronator teres
Flexulnaris
Palmaris longus
Flexor carpi radialis
Scapula
Spine of Scapula
Clavicle
Humerus
Ulna
Radius

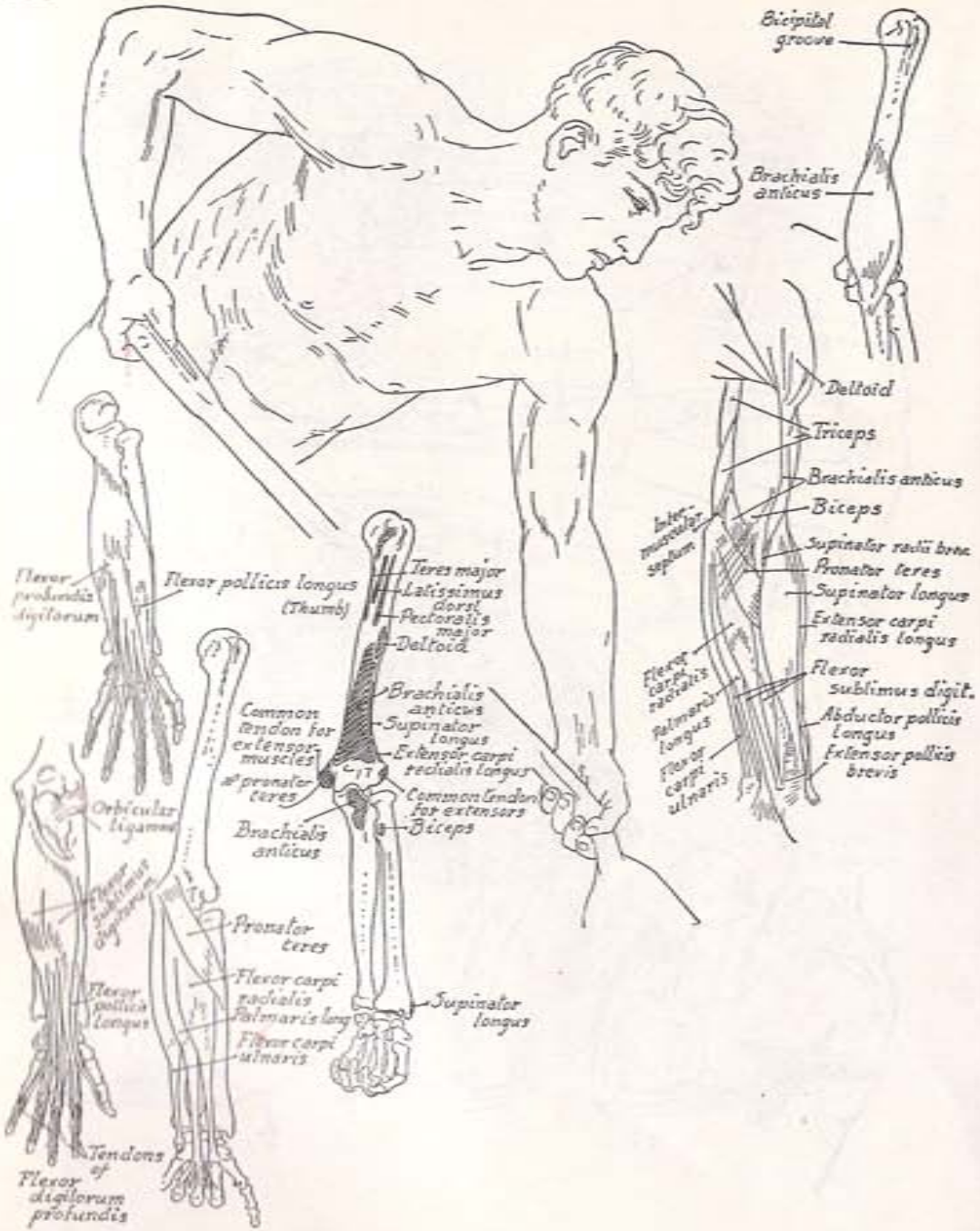

Patella
Tibia
Fibula
Astragalus
Os calcis
Femur
Greater trochanter
Tibia
Fibula

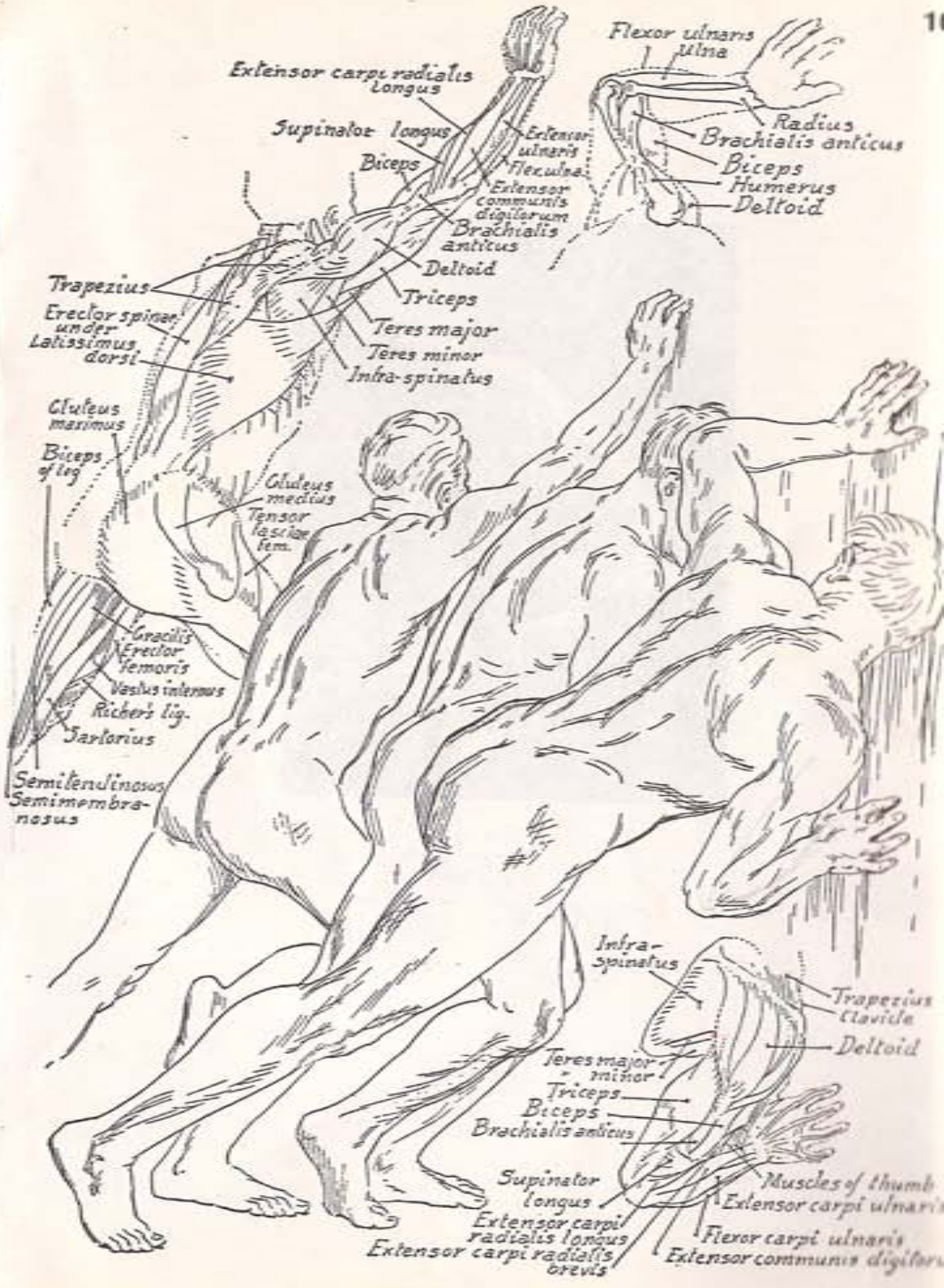


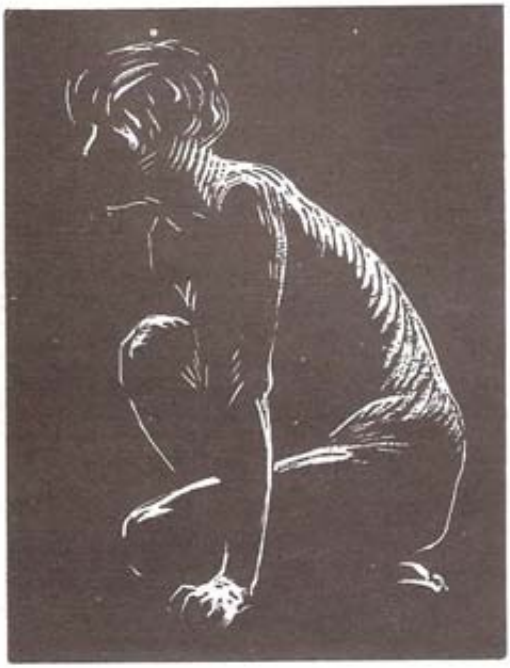

Deltoid
Infra-spinatus
Teres minor
Teres major
Brachialis anticus
Triceps tendon
Teres minor
Teres major
Supinator longus
Extensor digit. com.
Extensor carpi ulnaris
Muscles of thumb
Anconeus
Extensor carpi radialis longus
Extensor communis digitorum
Ulna bone
Flexor profundis digitorum
Flexor pollicis longus
Flexor digitorum sublimus
Supinator longus
Pronator radii teres
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Flexor digitorum sublimus




Extensor pollicis longus
Extensor pollicis brevis
Abductor pollicis longus

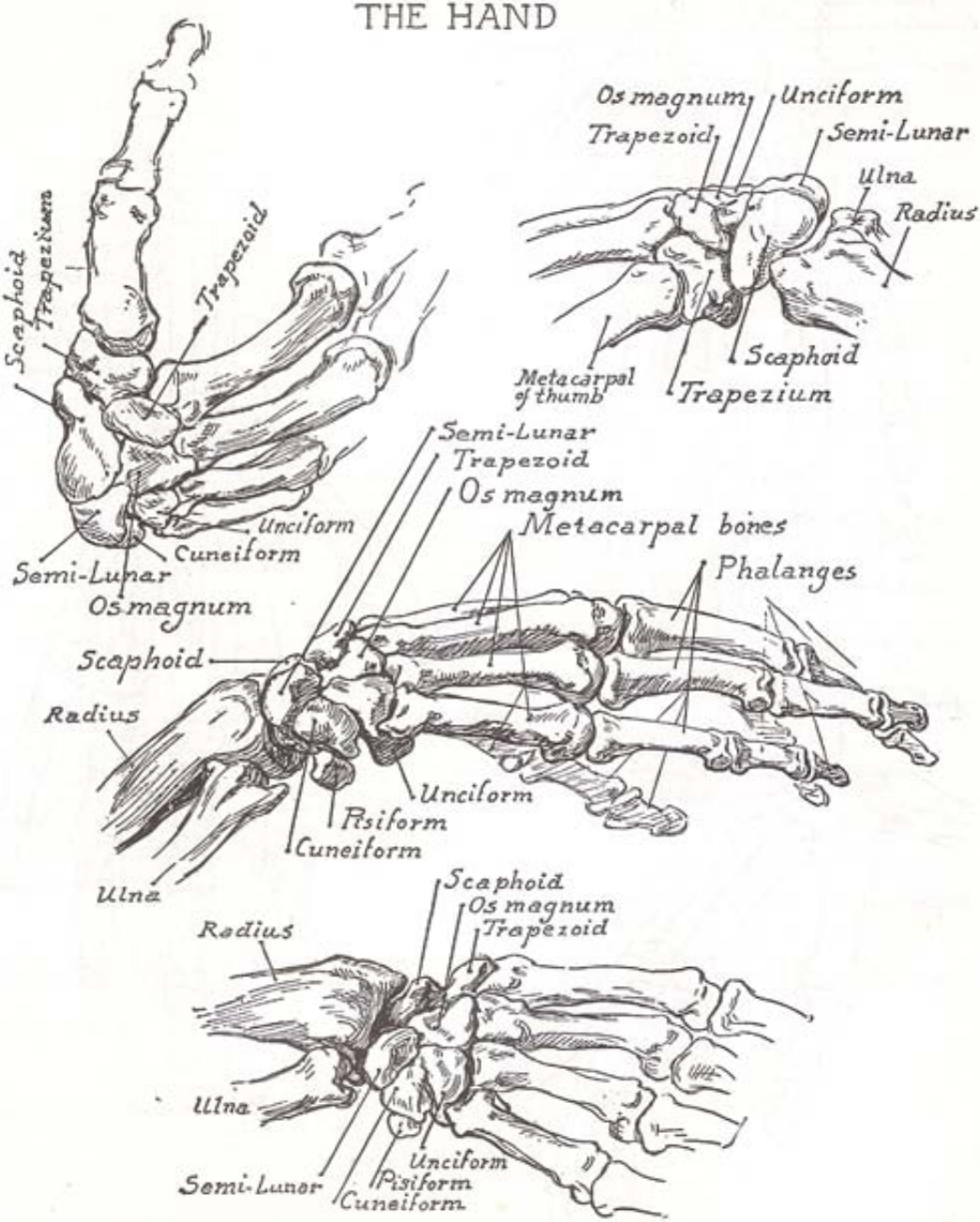

Bicipital groove
Brachialis anticus
Deltoid
Triceps
Brachialis anticus
Biceps
Supinator radii brev.
Pronator teres
Supinator longus
Extensor carpi radialis longus
Flexor sublimus digit.
Abductor pollicis longus
Extensor pollicis brevis
Inter-muscular septum
Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Flexor profundis digitorum
Flexor pollicis longus (Thumb)
Teres major
Latissimus dorsi
Pectoralis major
Deltoid
Brachialis anticus
Supinator longus
Extensor carpi radialis longus
Common tendon for extensor muscles
Pronator teres
Common tendon for extensors
Biceps
Brachialis anticus
Orbicular ligament
Pronator teres
Flexor carpi radialis
Palmaris long.
Flexor carpi ulnaris
Flexor pollicis longus
Supinator longus
Tendons of Flexor digitorum profundis


Extensor carpi radialis longus
Supinator longus
Biceps
Extensor ulnaris
Flexor ulnaris
Extensor communis digitorum
Brachialis anticus
Flexor ulnaris ulna
Radius
Brachialis anticus
Biceps
Humerus
Deltoid
Deltoid
Trapezius
Triceps
Erector spinae under Latissimus dorsi
Teres major
Teres minor
Infra-spinatus
Gluteus maximus
Biceps of leg
Gluteus medius
Tensor fascia lem.
Gracilis
Erector femoris
Vastus internus
Richet's lig.
Sartorius
Semitendinosus
Semimembranosus
Infra-spinatus
Trapezius Clavicle
Deltoid
Teres major
minor
Triceps
Biceps
Brachialis anticus
Supinator longus
Extensor carpi radialis longus
Extensor carpi radialis brevis
Muscles of thumb
Extensor carpi ulnaris
Flexor carpi ulnaris
Extensor communis digitorum

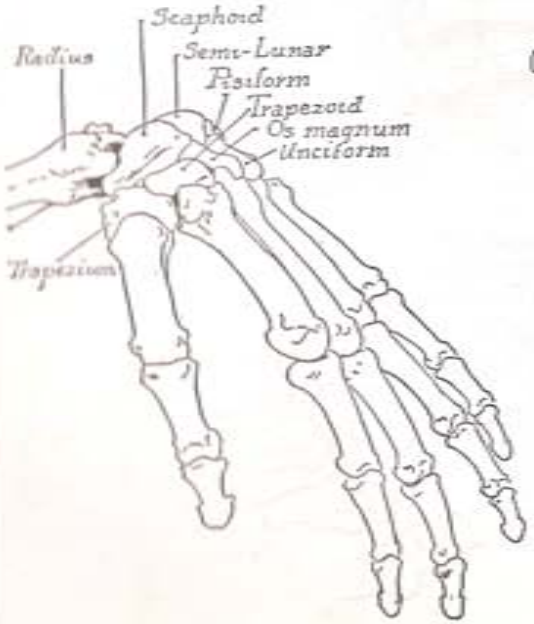


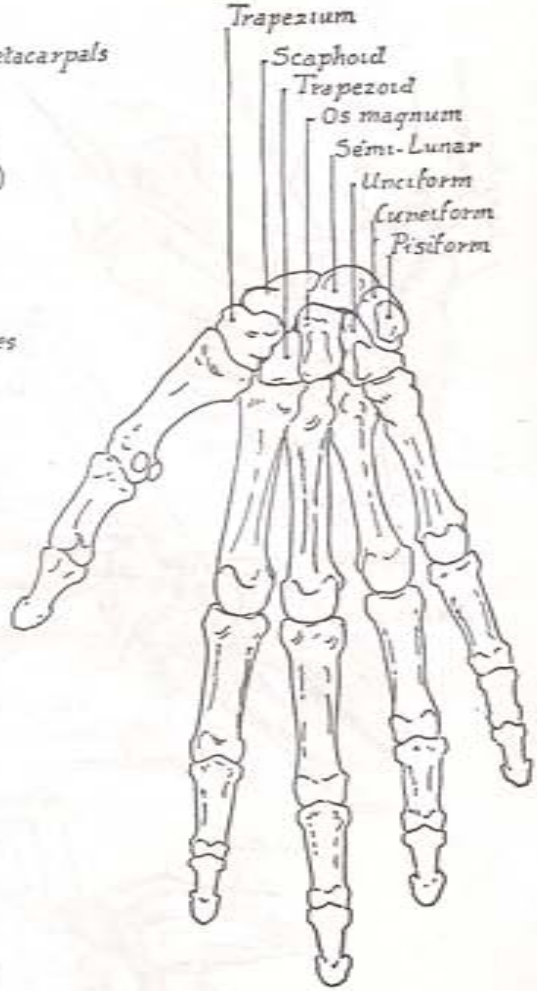
PART VI
THE HAND

THE HAND


Os magnum
Unciform
Trapezoid
Semi-Lunar
Ulna
Radius
Scaphoid
Trapezium
Metacarpal of thumb
Scaphoid
Trapezium
Trapezoid
Unciform
Cuneiform
Semi-Lunar
Os magnum
Semi-Lunar
Trapezoid
Os magnum
Metacarpal bones
Phalanges
Scaphoid
Radius
Unciform
Pisiform
Cuneiform
Ulna
Scaphoid
Os magnum
Trapezoid
Radius
Ulna
Unciform
Semi-Lunar
Pisiform
Cuneiform

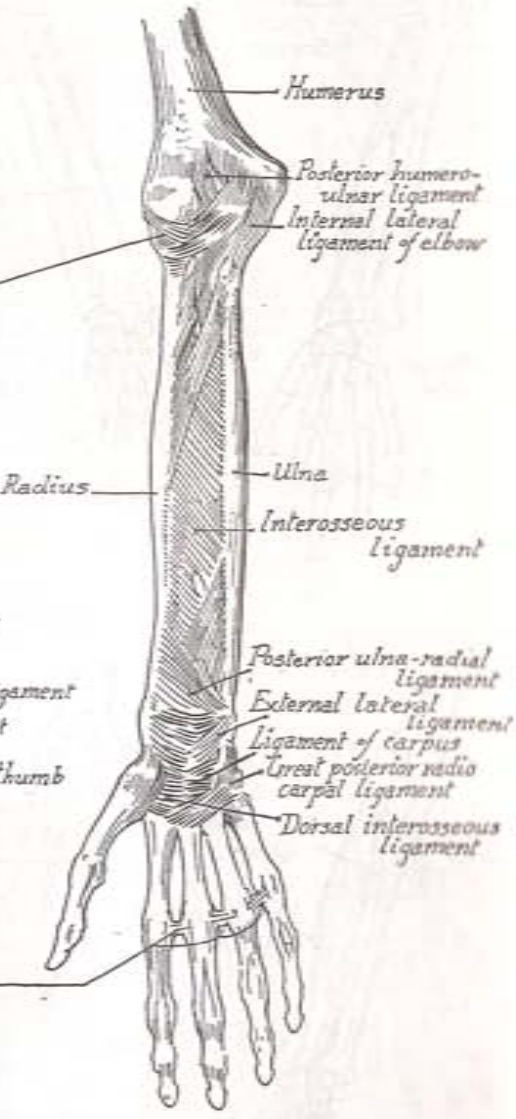




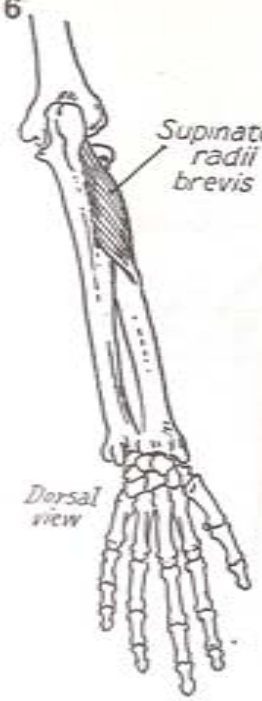


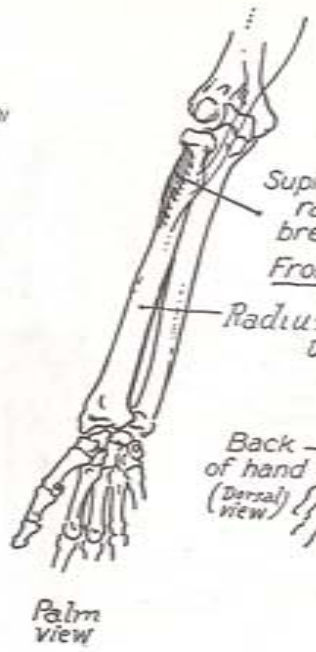
Palm view

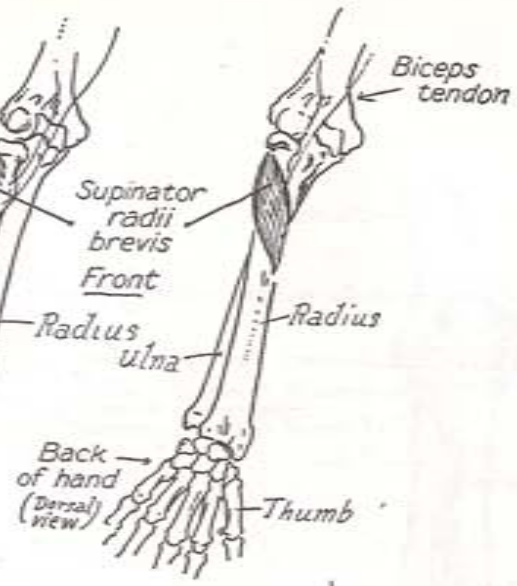




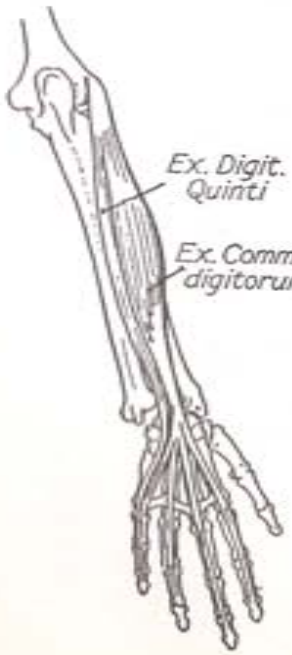
Back Ligaments of Forearm Front

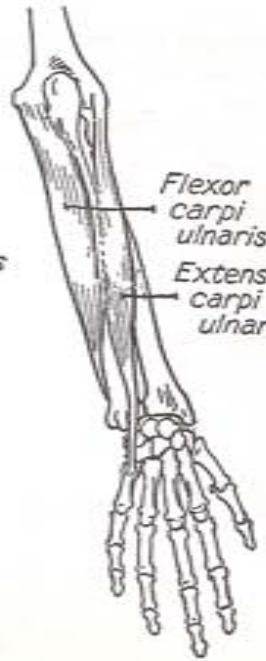

Supinator radii brevis
Dorsal view

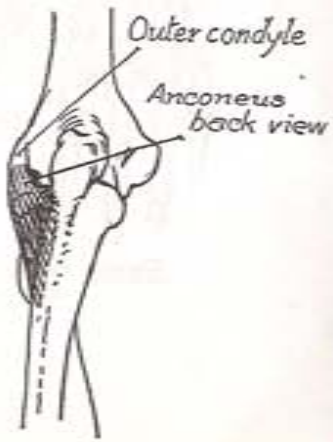

Supinator radii brevis
Front
Radius
Ulna
Palm view

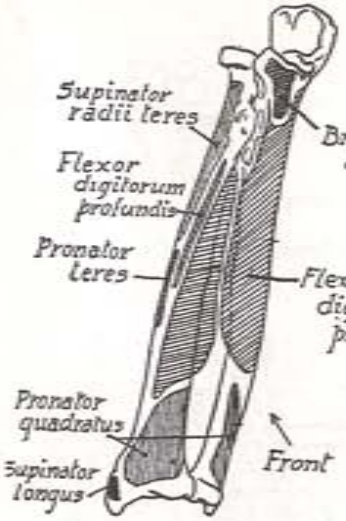

Biceps tendon
Radius
Back of hand (Dorsal view)
Thumb

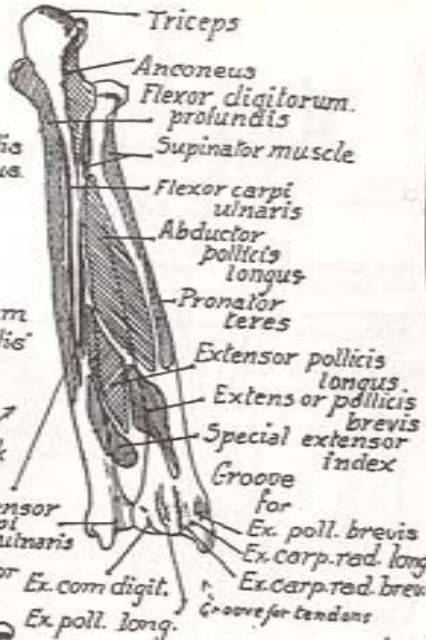

Outer condyle of humerus
Ulna
Anconeus side View


Ex. Digit. Quinti
Ex. Communis digitorum

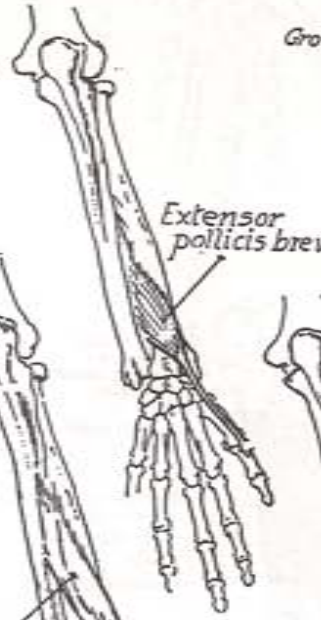

Flexor carpi ulnaris
Extensor carpi ulnaris

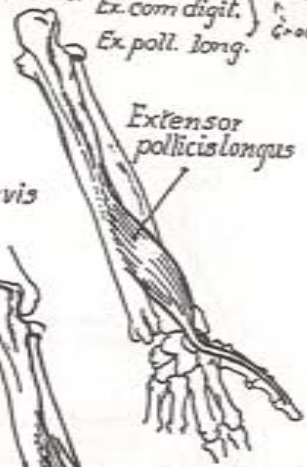

Outer condyle
Anconeus back view


Supinator radii teres
Flexor digitorum profundis
Pronator teres
Pronator quadratus
Supinator longus
Brachialis anticus
Flexor digitorum profundis
Front


Triceps
Anconeus
Flexor digitorum profundis
Supinator muscle
Flexor carpi ulnaris
Abductor pollicis longus
Pronator teres
Extensor pollicis longus
Extensor pollicis brevis
Special extensor index
Groove for Ex. poll. brevis
Ex. carp. rad. long.
Ex. carp. rad. brev.
Groove for tendons
Back
Extensor carpi ulnaris
Groove for Ex. com digit.
Ex. poll. long.

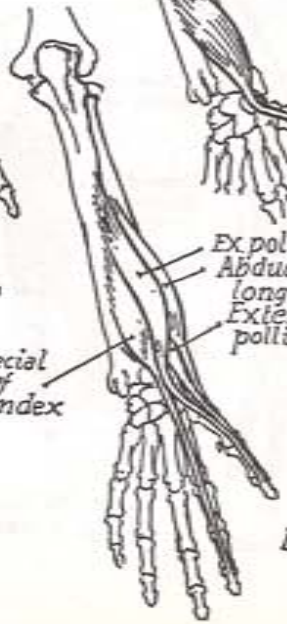

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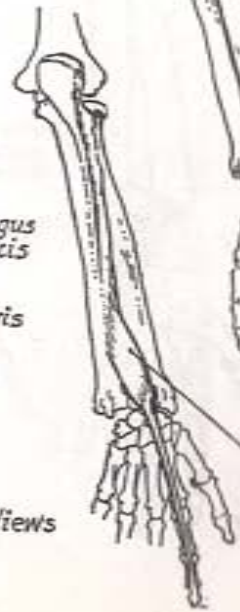

Extensor pollicis brevis

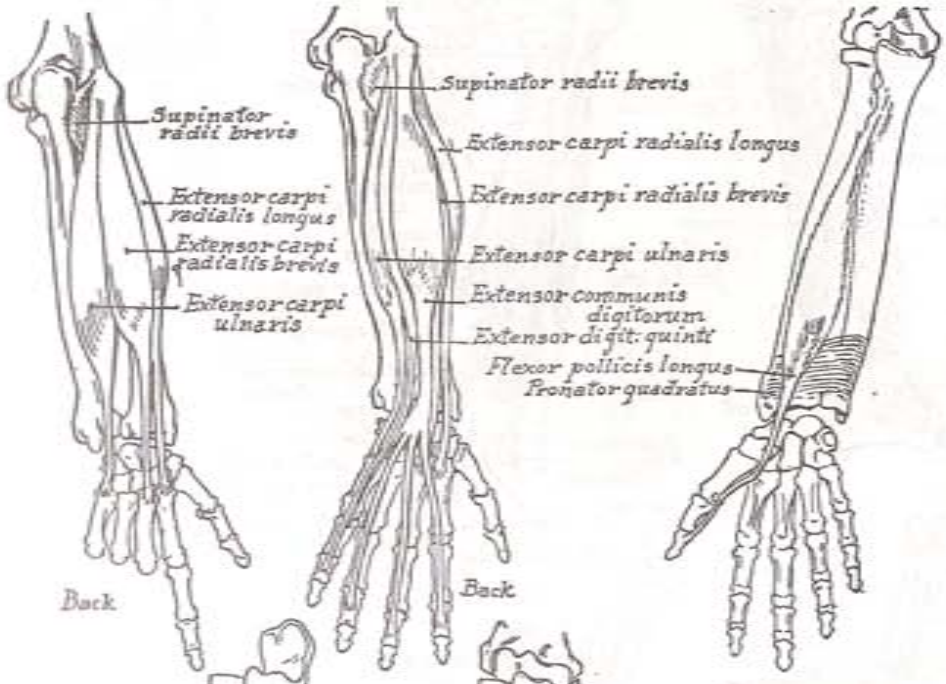

Extensor pollicis longus

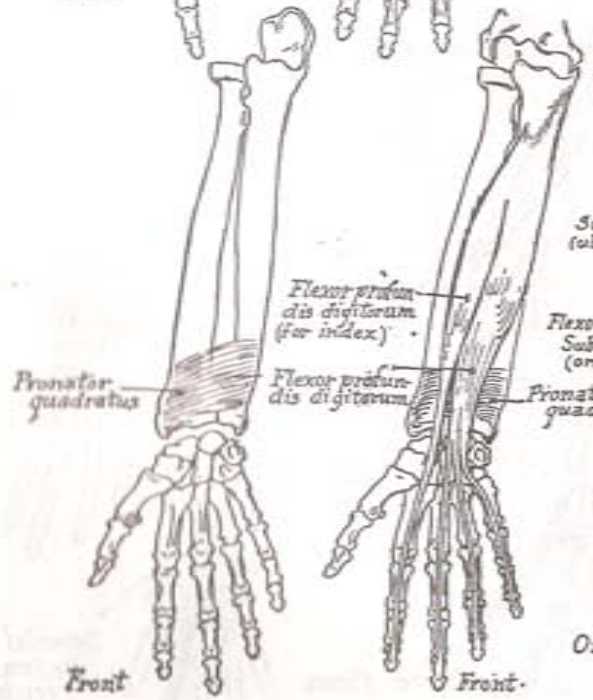

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Abductor pollicis longus


Ex pollicis longus
Abductor pollicis longus
Extensor pollicis brevis
Special Ex. of index
Dorsal Views

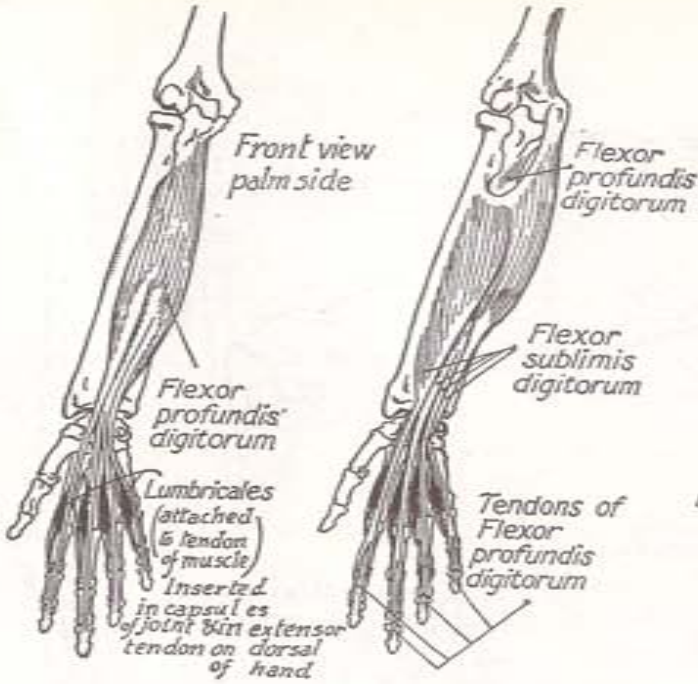

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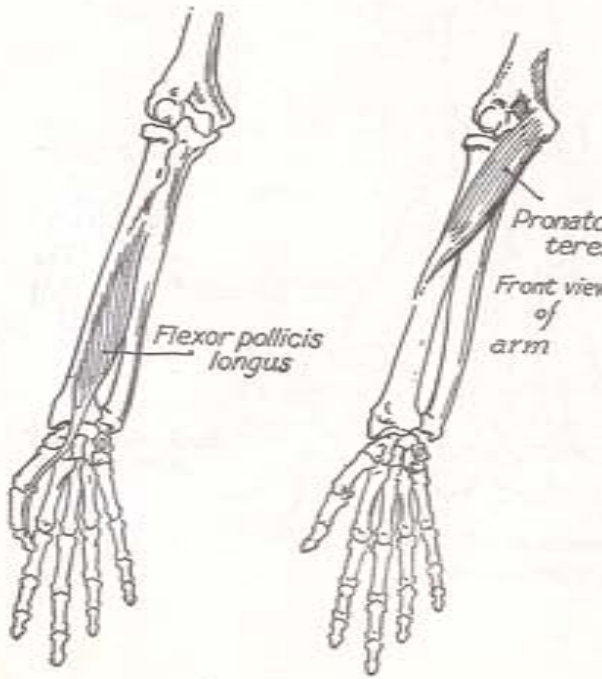


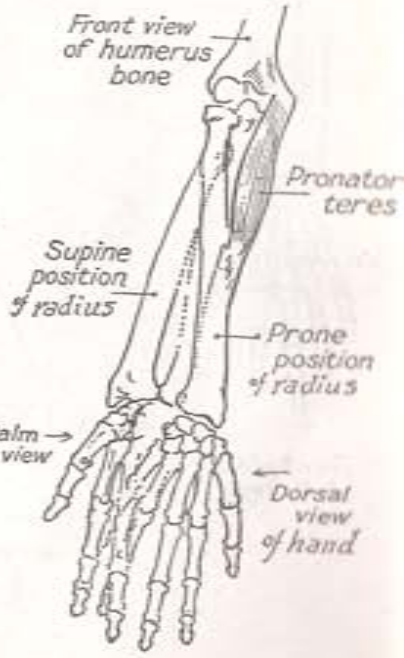


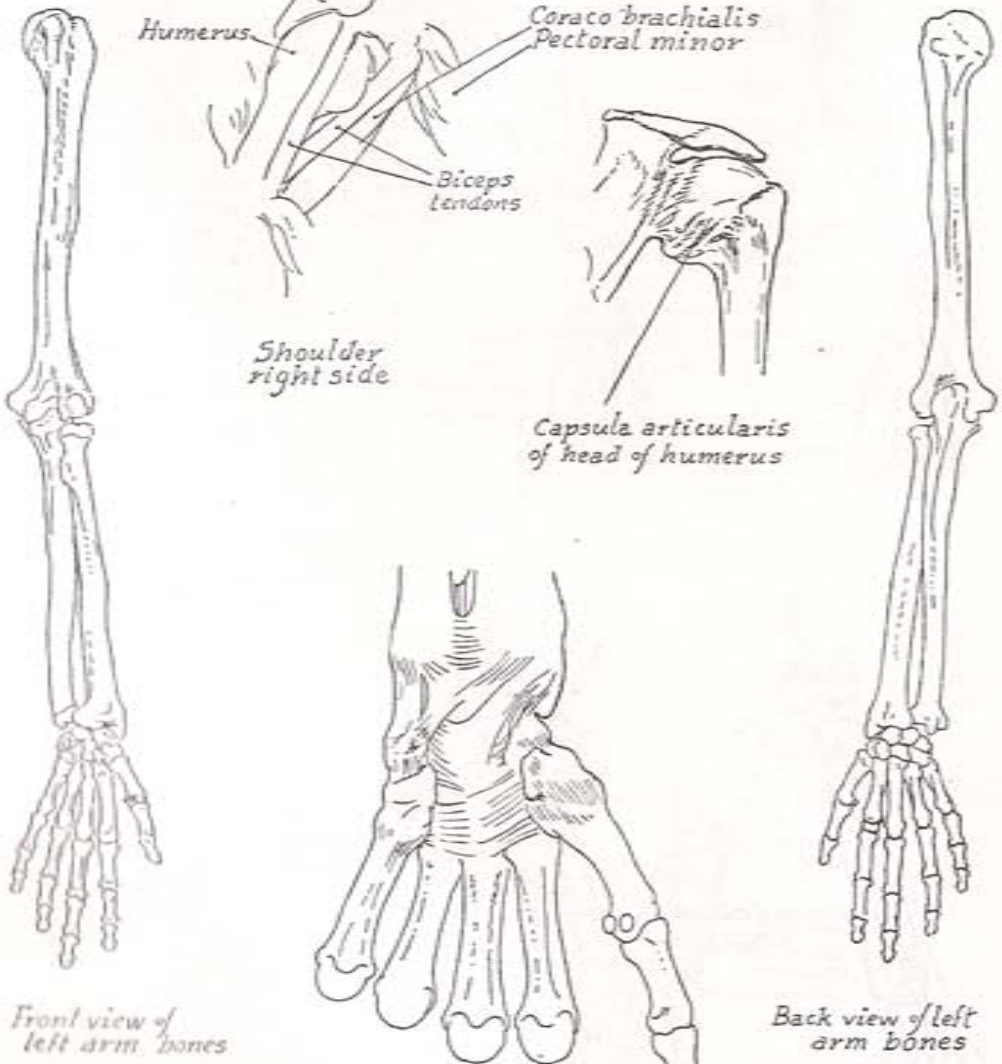
Origin and insertion of muscles

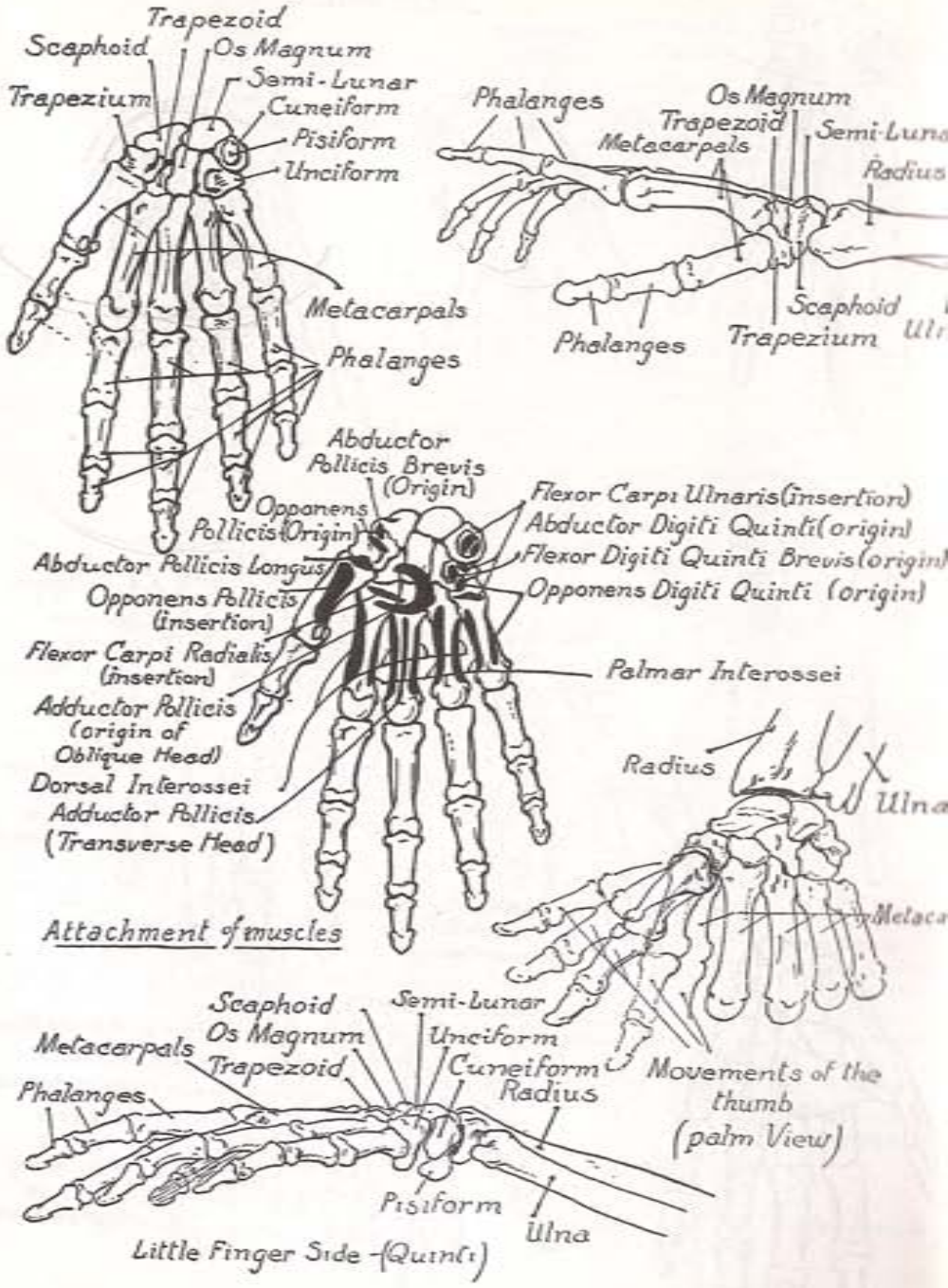




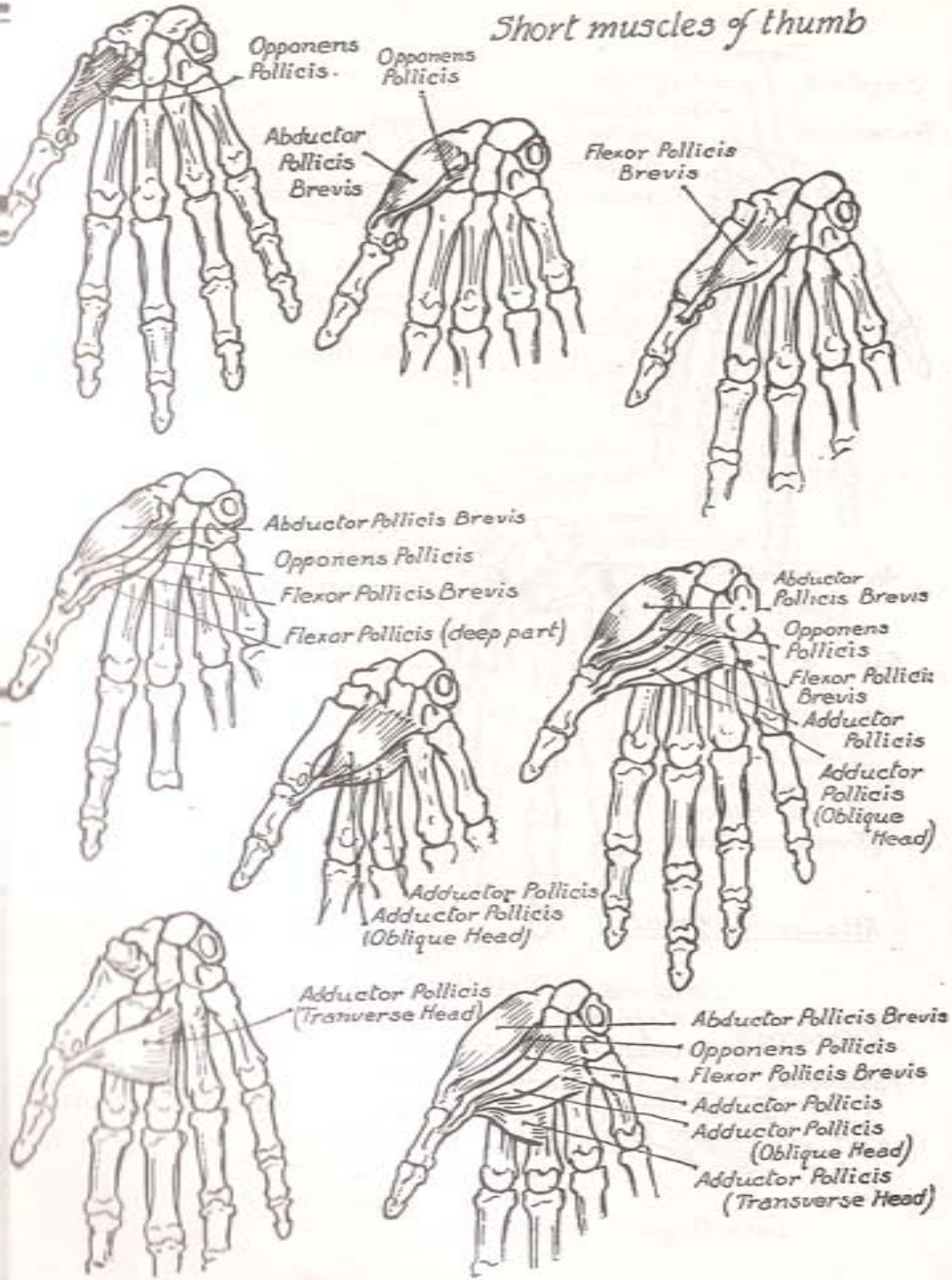


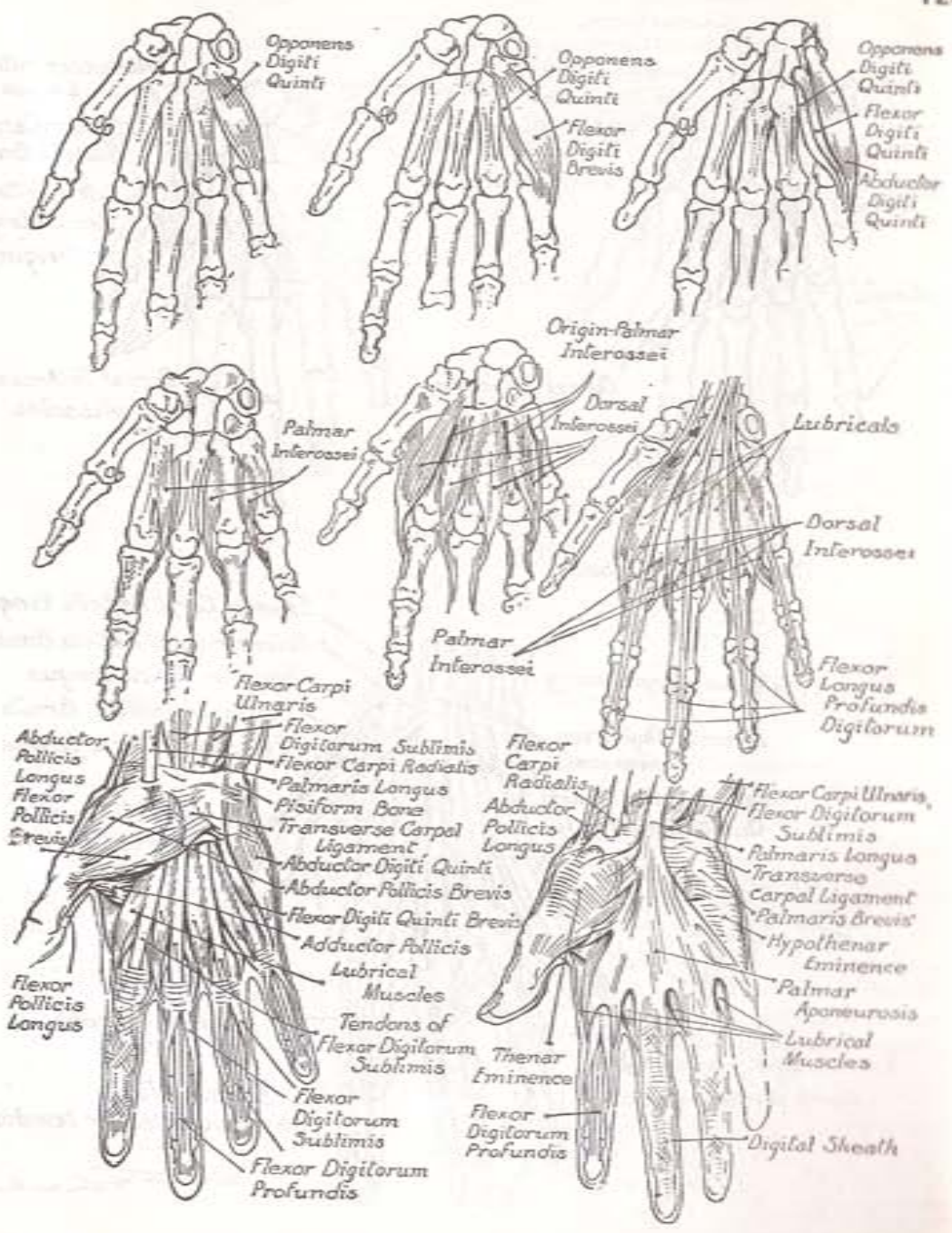


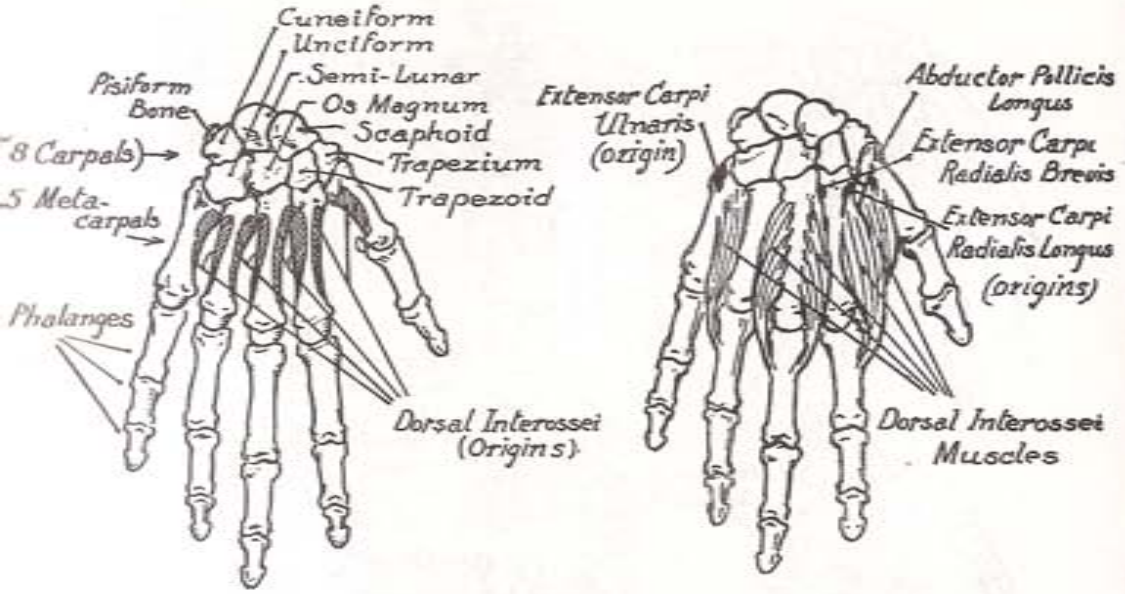

Acromion process
Clavicle
Humerus
Coraco brachialis
Pectoral minor
Biceps tendons
Shoulder right side
Capsula articularis of head of humerus
Front view of left arm bones
Back view of left arm bones
Ligaments binding bones of the wrist


Trapezoid
Scaphoid
Os Magnum
Trapezium
Semi-Lunar
Cuneiform
Pisiform
Unciform
Metacarpals
Phalanges
Abductor Pollicis Brevis (Origin)
Opponens Pollicis (Origin)
Abductor Pollicis Longus
Opponens Pollicis (insertion)
Flexor Carpi Radialis (insertion)
Adductor Pollicis (origin of Oblique Head)
Dorsal Interossei
Adductor Pollicis (Transverse Head)
Flexor Carpi Ulnaris (insertion)
Abductor Digiti Quinti (origin)
Flexor Digiti Quinti Brevis (origin)
Opponens Digiti Quinti (origin)
Palmar Interossei
Attachment of muscles
Phalanges
Os Magnum
Trapezoid
Semi-Luna
Metacarpals
Radius
Scaphoid
Phalanges
Trapezium
Radius
Ulna
Scaphoid
Os Magnum
Metacarpals
Trapezoid
Semi-Lunar
Unciform
Cuneiform
Radius
Phalanges
Pisiform
Ulna
Little Finger Side - (Quinti)
Movements of the thumb (palm View)

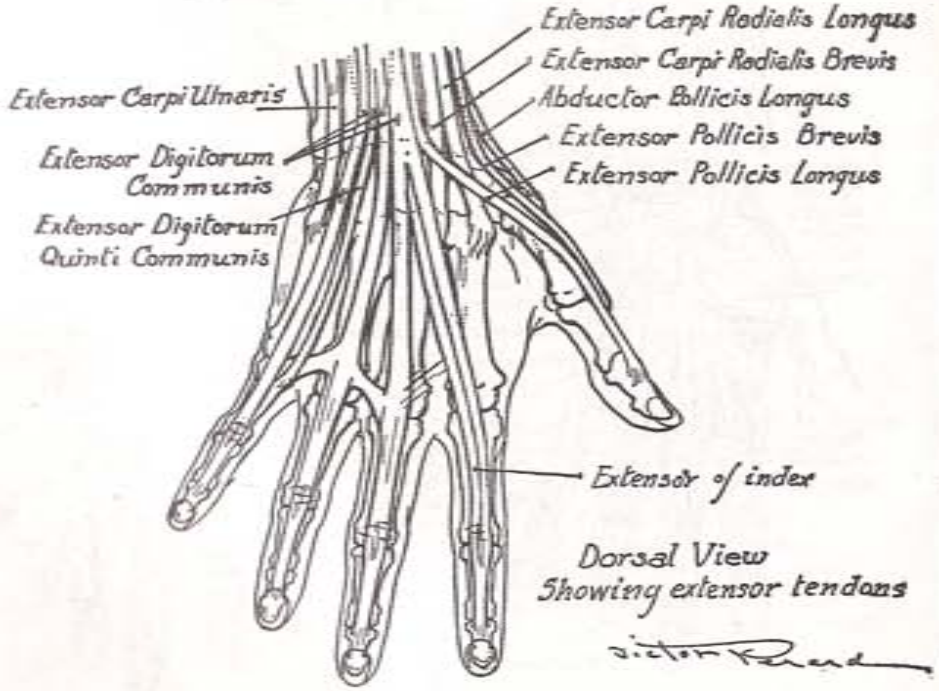
Short muscles of thumb



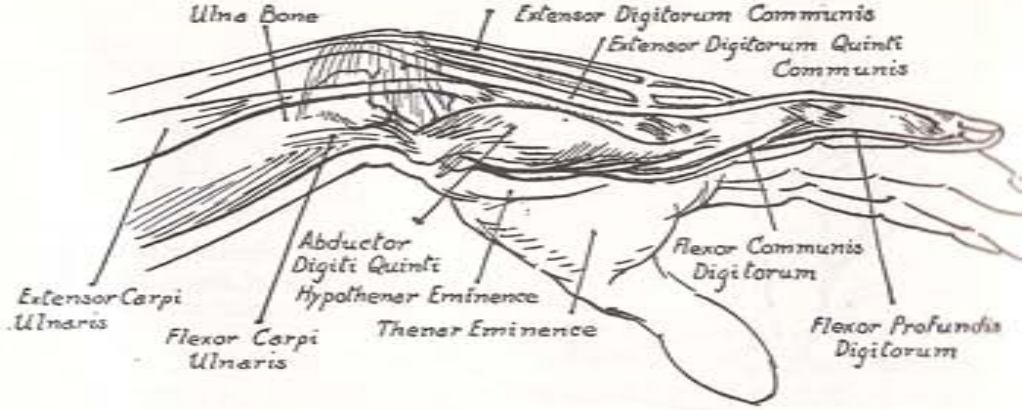


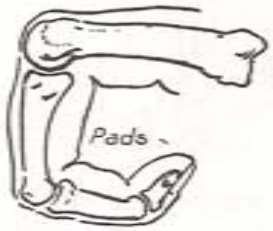


Dorsal View (back)



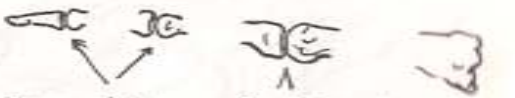
Dorsal View
Showing extensor tendons

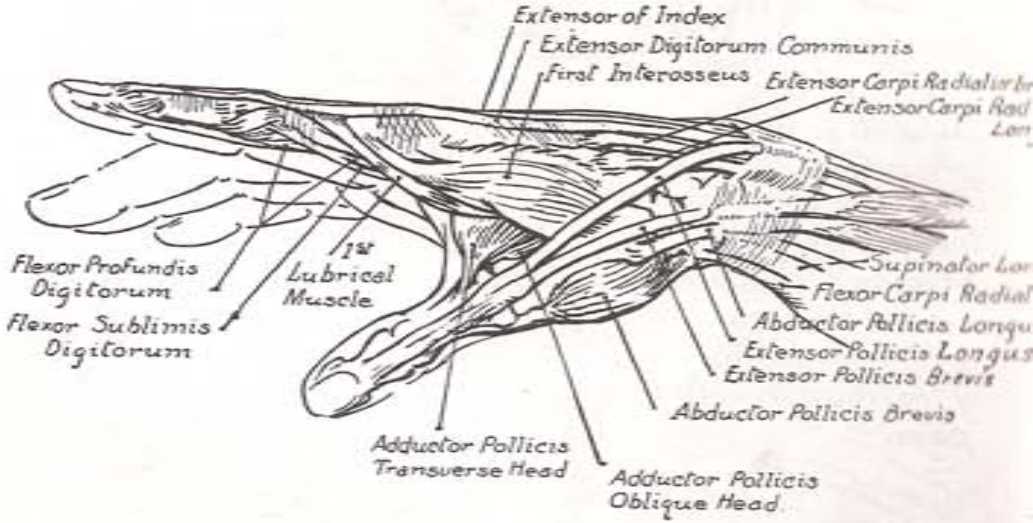






Ligaments of Finger Joints







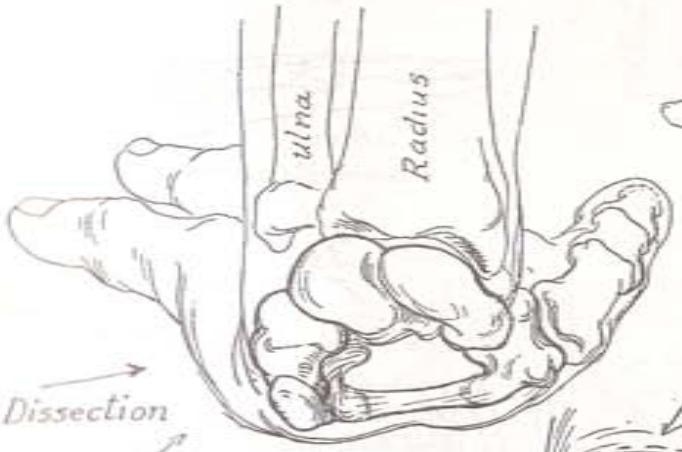
Back view of wrist



Annular ligament. Sectional view of wrist bones



Flexor tendons passing under the arch of the wrist bones.



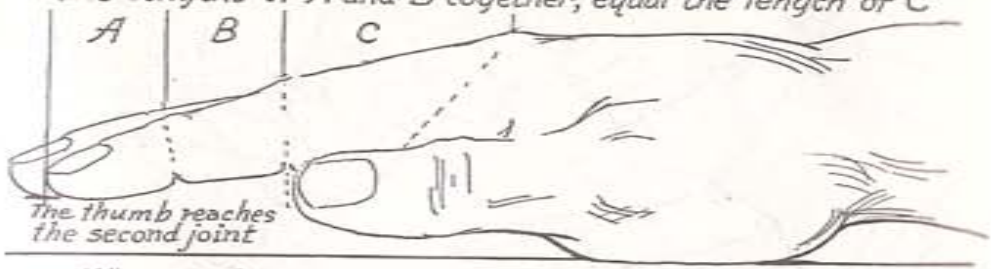
Dissection

The arch formed by the group of wrist bones with the ligament binding the two hook like processes. This forms a canal through which the tendons of the flexor muscles pass.



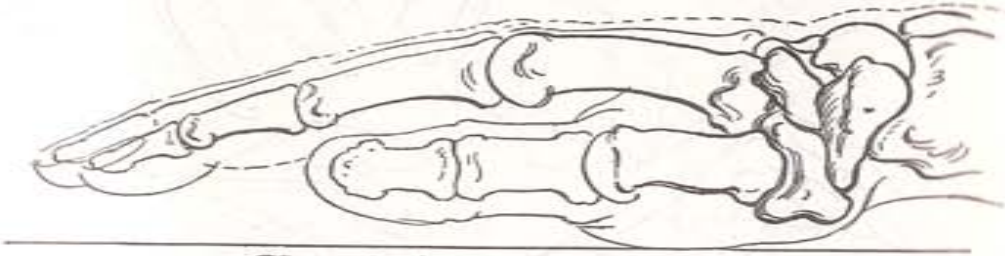
The back of the hand becomes more convex as it nears the wrist.

The lengths of A and B together, equal the length of C



The thumb reaches the second joint

When the hand is resting on a flat surface, the wrist does not come in contact with that surface.

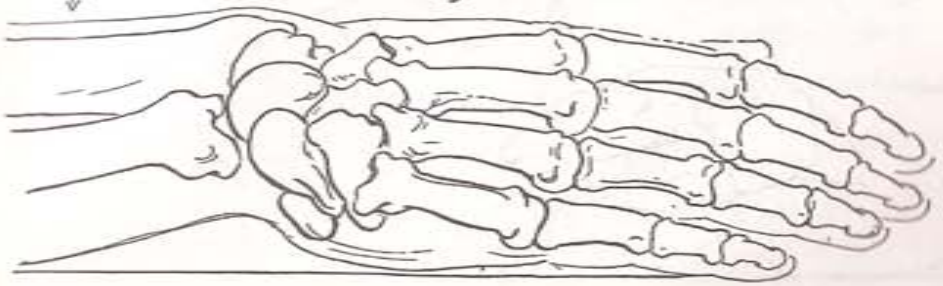


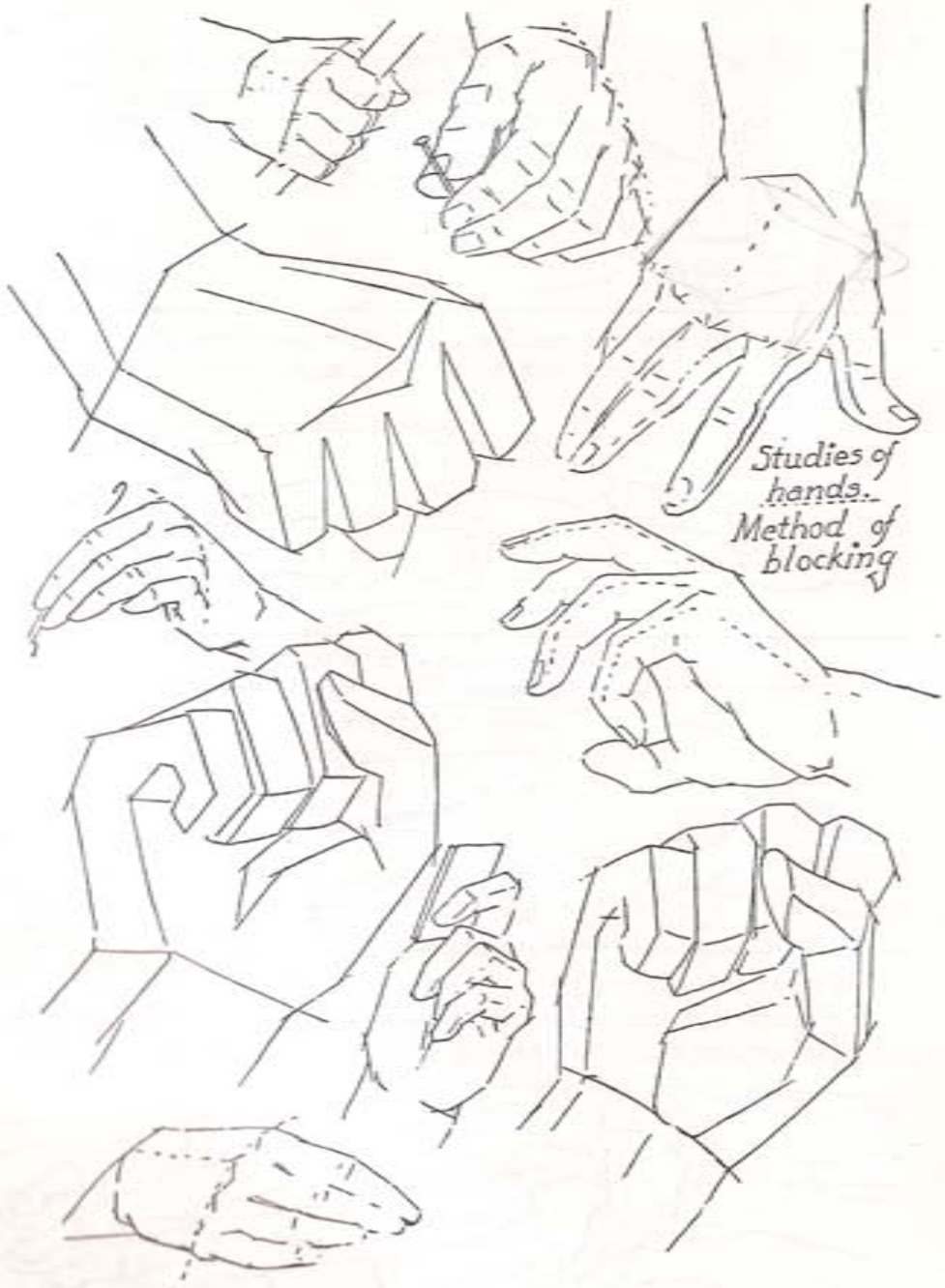
The wrist bones are grouped far into the wrist forming the arch of the wrist.

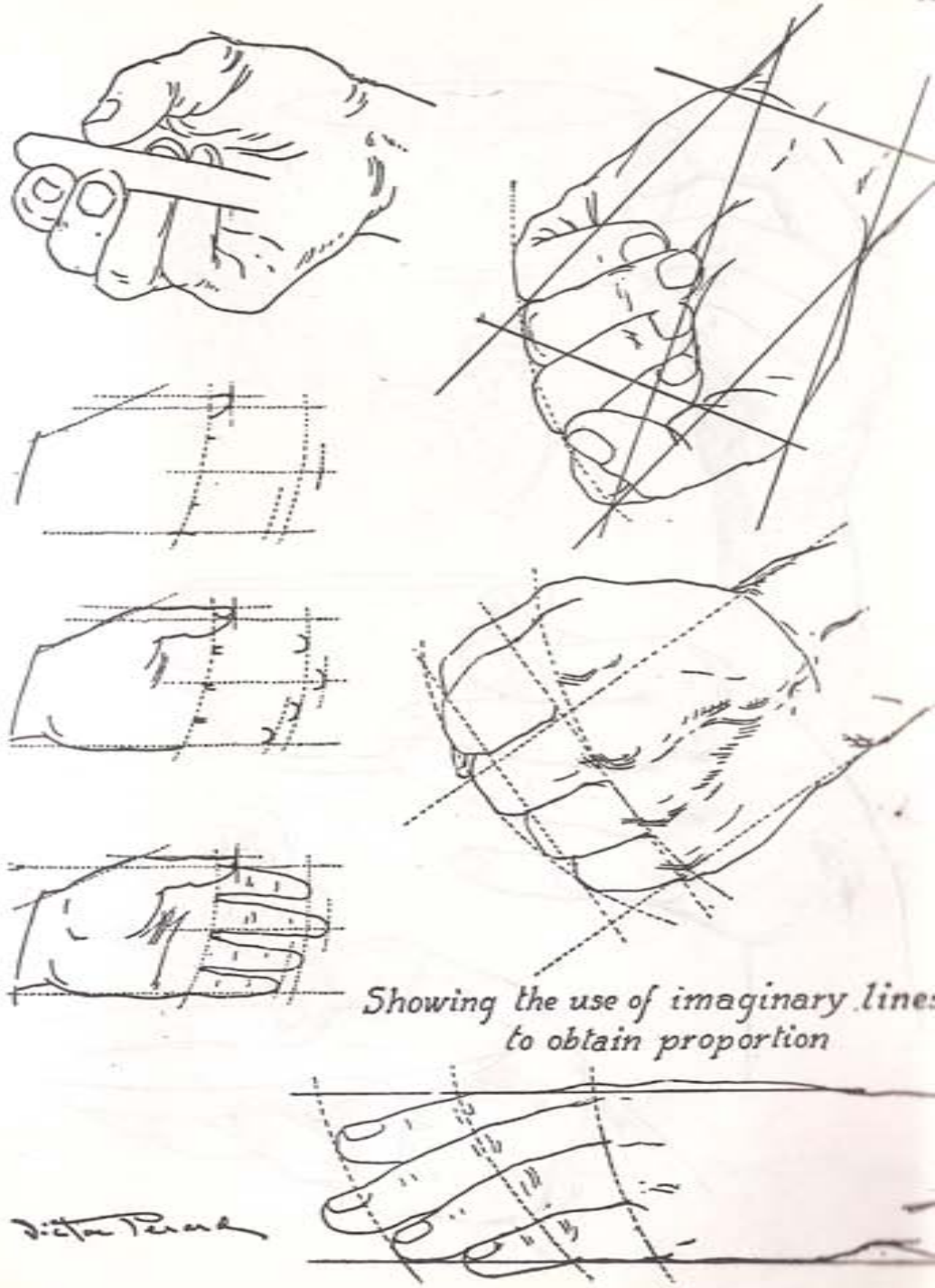


Woman's hand

Relative positions of the bones from the little finger side when the hand is resting on a flat surface.




Studies of hands. Method of blocking


Showing the use of imaginary lines to obtain proportion

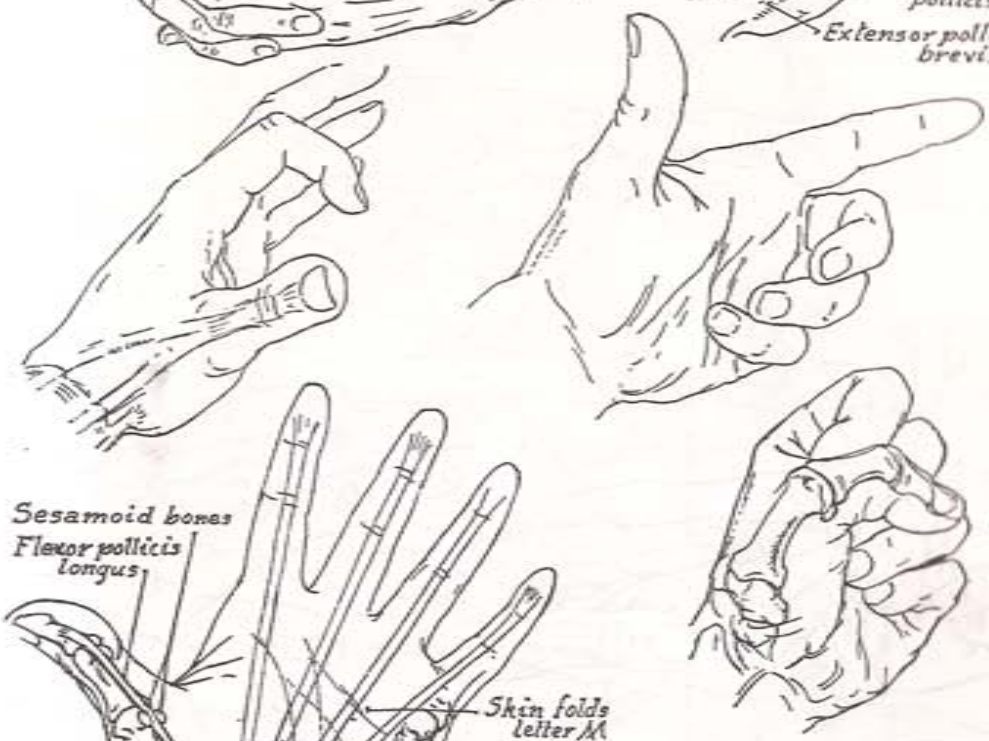




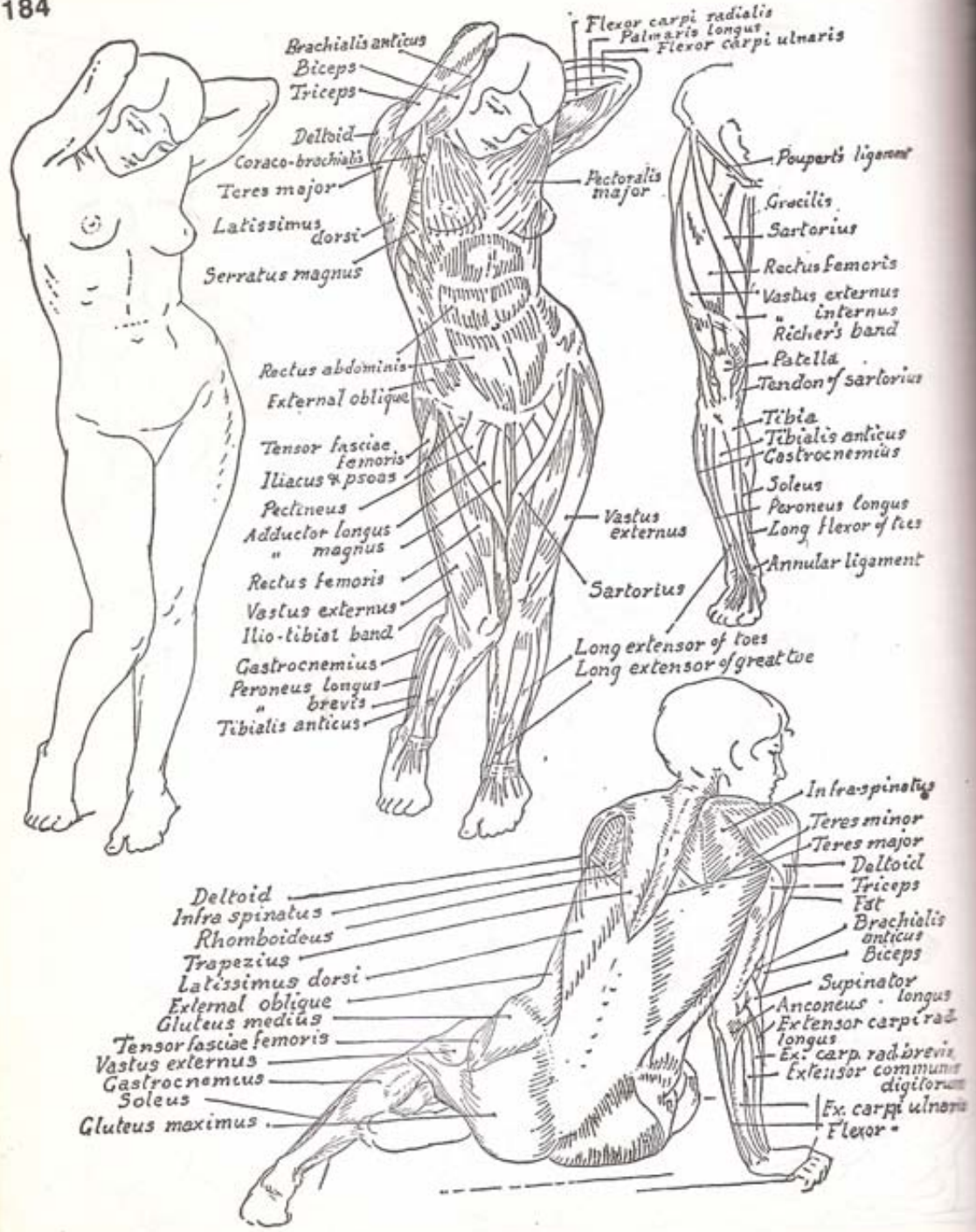


f imaginary lines
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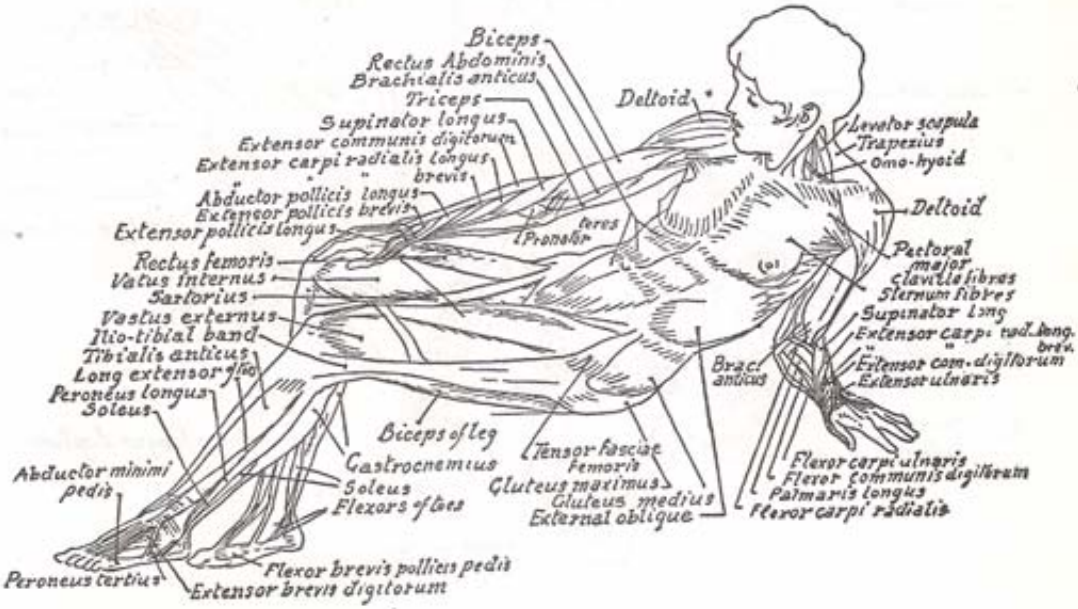


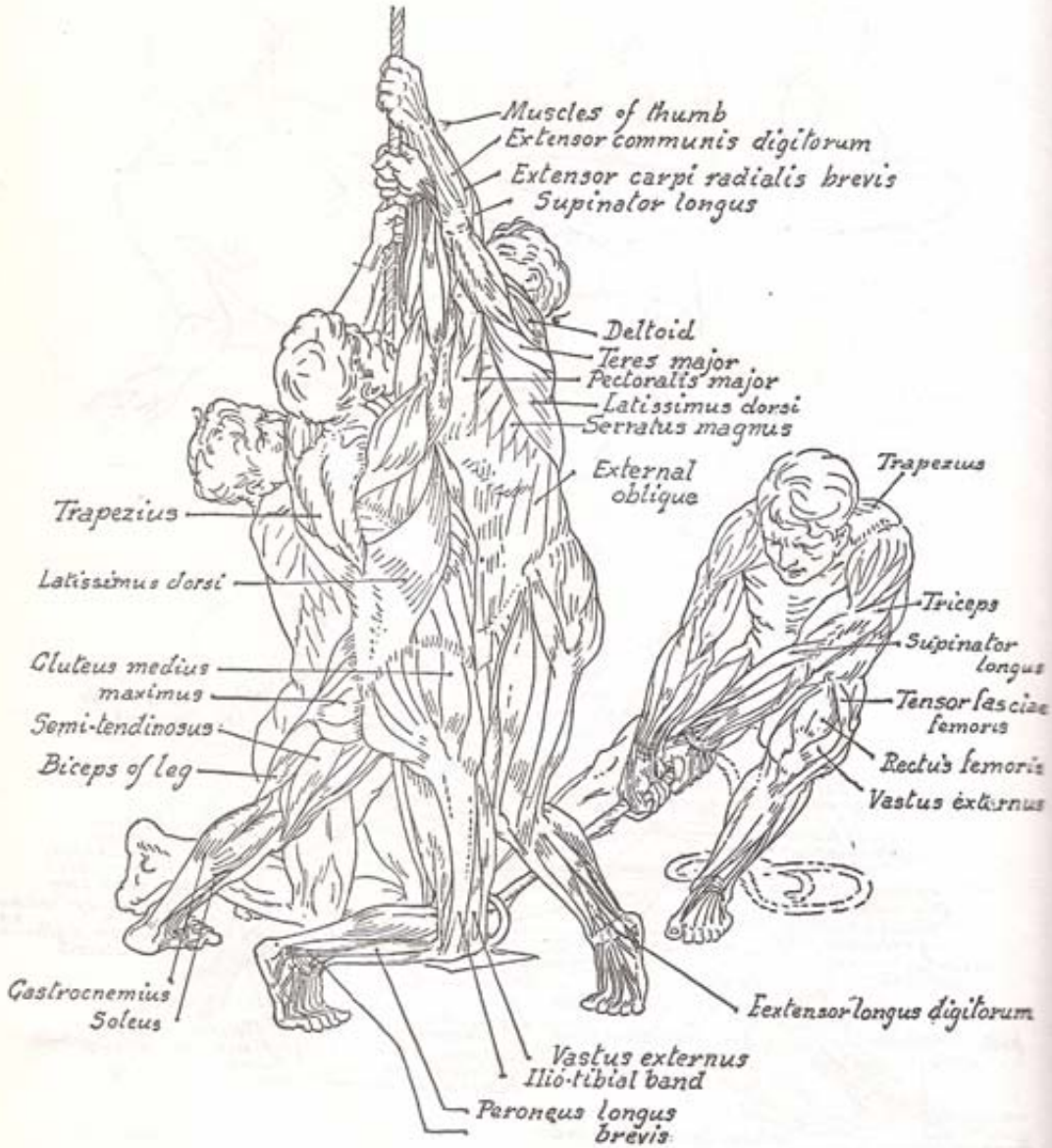


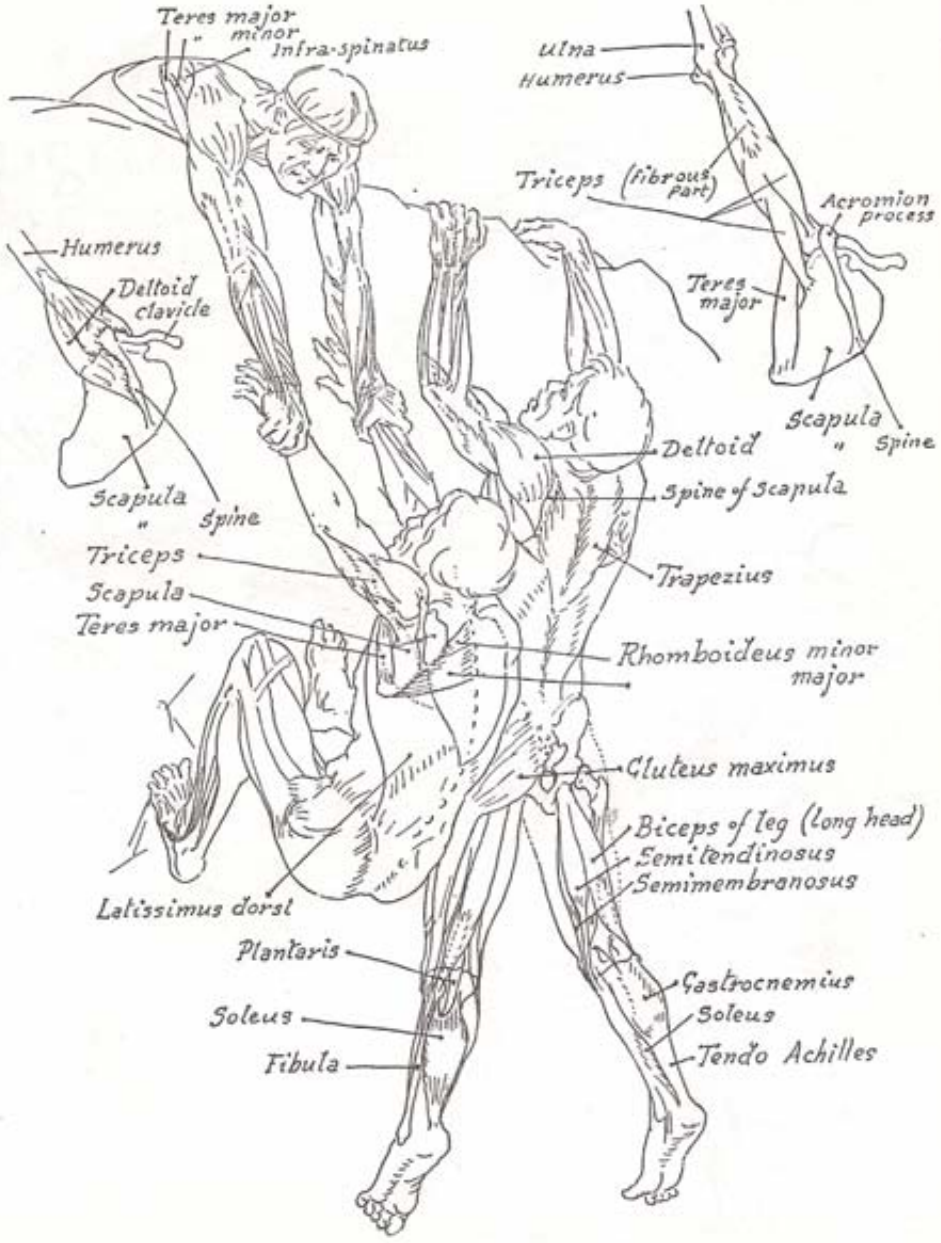
Palm view


Flexor carpi radialis
Palmaris longus
Flexor carpi ulnaris
Brachialis anticus
Biceps
Triceps
Deltoid
Coraco-brachialis
Teres major
Latissimus dorsi
Serratus magnus
Pectoralis major
Pouparti ligament
Gracilis
Sartorius
Rectus femoris
Vastus externus
" internus
Richer's band
Patella
Tendon of sartorius
Tibia
Tibialis anticus
Gastrocnemius
Soleus
Peroneus longus
Long flexor of toes
Annular ligament
Rectus abdominis
External oblique
Tensor fasciae femoris
Iliacus & psoas
Pectineus
Adductor longus
" magnus
Rectus femoris
Vastus externus
Ilio-tibial band
Gastrocnemius
Peroneus longus
" brevis
Tibialis anticus
Vastus externus
Sartorius
Long extensor of toes
Long extensor of great toe
Infra-spinatus
Teres minor
Teres major
Deltoid
Triceps
Fat
Brachialis anticus
Biceps
Supinator longus
Anconeus
Extensor carpi rad. longus
Ex. carp. rad. brevis
Extensor communis digitorum
Ex. carpi ulnaris
Flexor -
Deltoid
Infra spinatus
Rhomboideus
Trapezius
Latissimus dorsi
External oblique
Gluteus medius
Tensor fasciae femoris
Vastus externus
Gastrocnemius
Soleus
Gluteus maximus

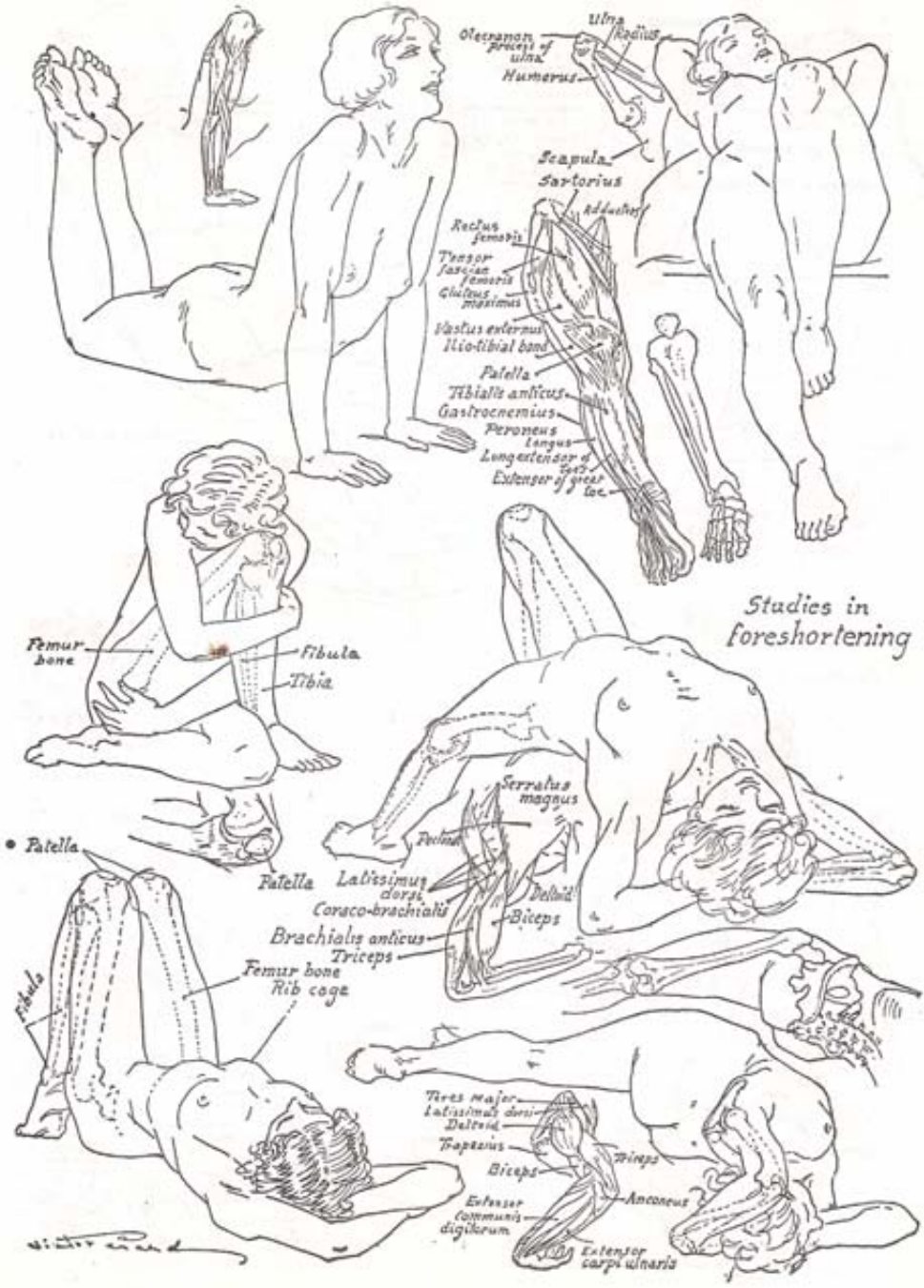



Biceps
Rectus Abdominis
Brachialis anticus
Triceps
Supinator longus
Extensor communis digitorum
Extensor carpi radialis longus
" brevis
Abductor pollicis longus
Extensor pollicis brevis
Extensor pollicis longus
Rectus femoris
Vatus internus
Sartorius
Vastus externus
Ilio-tibial band
Tibialis anticus
Long extensor of toe
Peroneus longus
Soleus
Abductor minimi pedis
Peroneus tertius
Extensor brevis digitorum
Flexor brevis pollicis pedis
Flexors of toes
Soleus
Gastrocnemius
Biceps of leg
Tensor fasciæ femoris
Gluteus maximus
Gluteus medius
External oblique
Pronator teres
Deltoid
Levator scapulæ
Trapezius
Omo-hyoid
Deltoid
Pectoral major
clavicle fibres
Sternum fibres
Supinator long
Extensor carpi rad. long. brev.
Extensor com. digitorum
Extensor ulnaris
Brachi anticus
Flexor carpi ulnaris
Flexor communis digitorum
Palmaris longus
Flexor carpi radialis

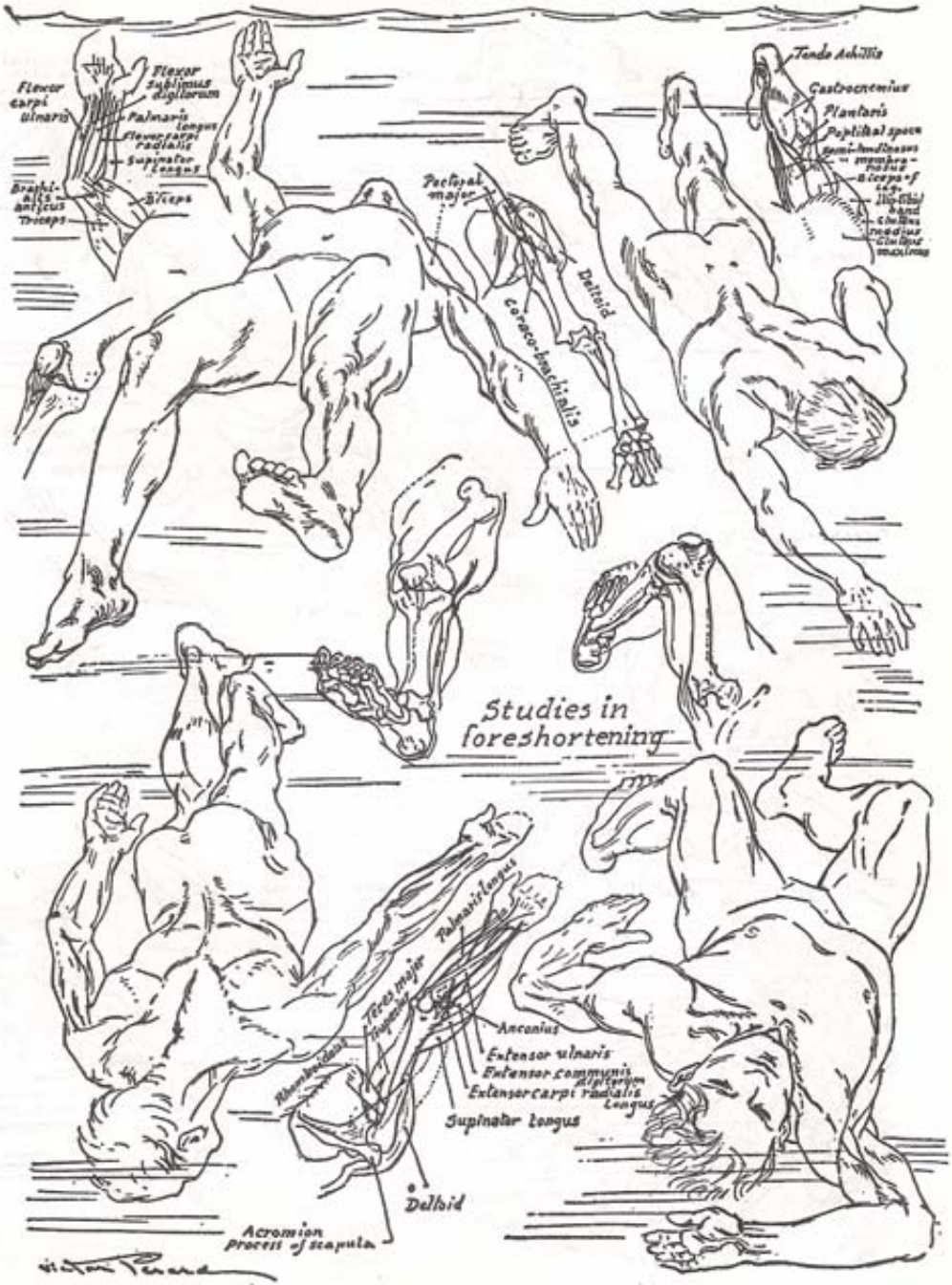

Muscles of thumb
Extensor communis digitorum
Extensor carpi radialis brevis
Supinator longus
Deltoid
Teres major
Pectoralis major
Latissimus dorsi
Serratus magnus
External oblique
Trapezius
Latissimus dorsi
Gluteus medius
maximus
Semi-tendinosus
Biceps of leg
Gastrocnemius
Soleus
Vastus externus
Ilio-tibial band
Peroneus longus
brevis
Trapezius
Triceps
Supinator longus
Tensor fasciae femoris
Rectus femoris
Vastus externus
Extensor longus digitorum

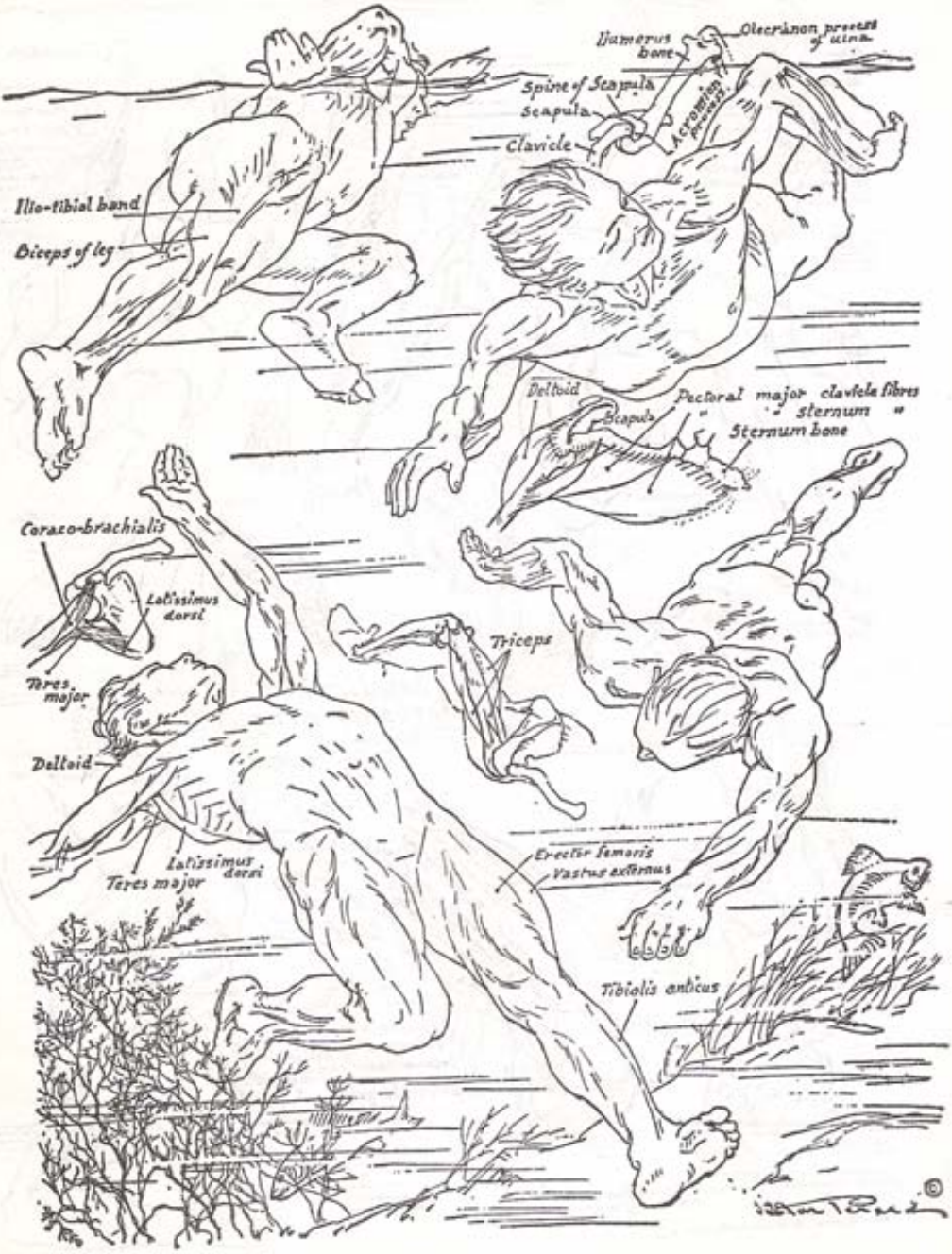

Teres major
" minor
Infra-spinatus
Ulna
Humerus
Triceps (fibrous part)
Acromion process
Humerus
Deltoid
clavicle
Teres major
Scapula
" Spine
Deltoid
Spine of scapula
Scapula
" Spine
Triceps
Trapezius
Scapula
Teres major
Rhomboideus minor
major
Gluteus maximus
Biceps of leg (long head)
Semitendinosus
Semimembranosus
Latissimus dorsi
Plantaris
Gastrocnemius
Soleus
Soleus
Fibula
Tendo Achilles

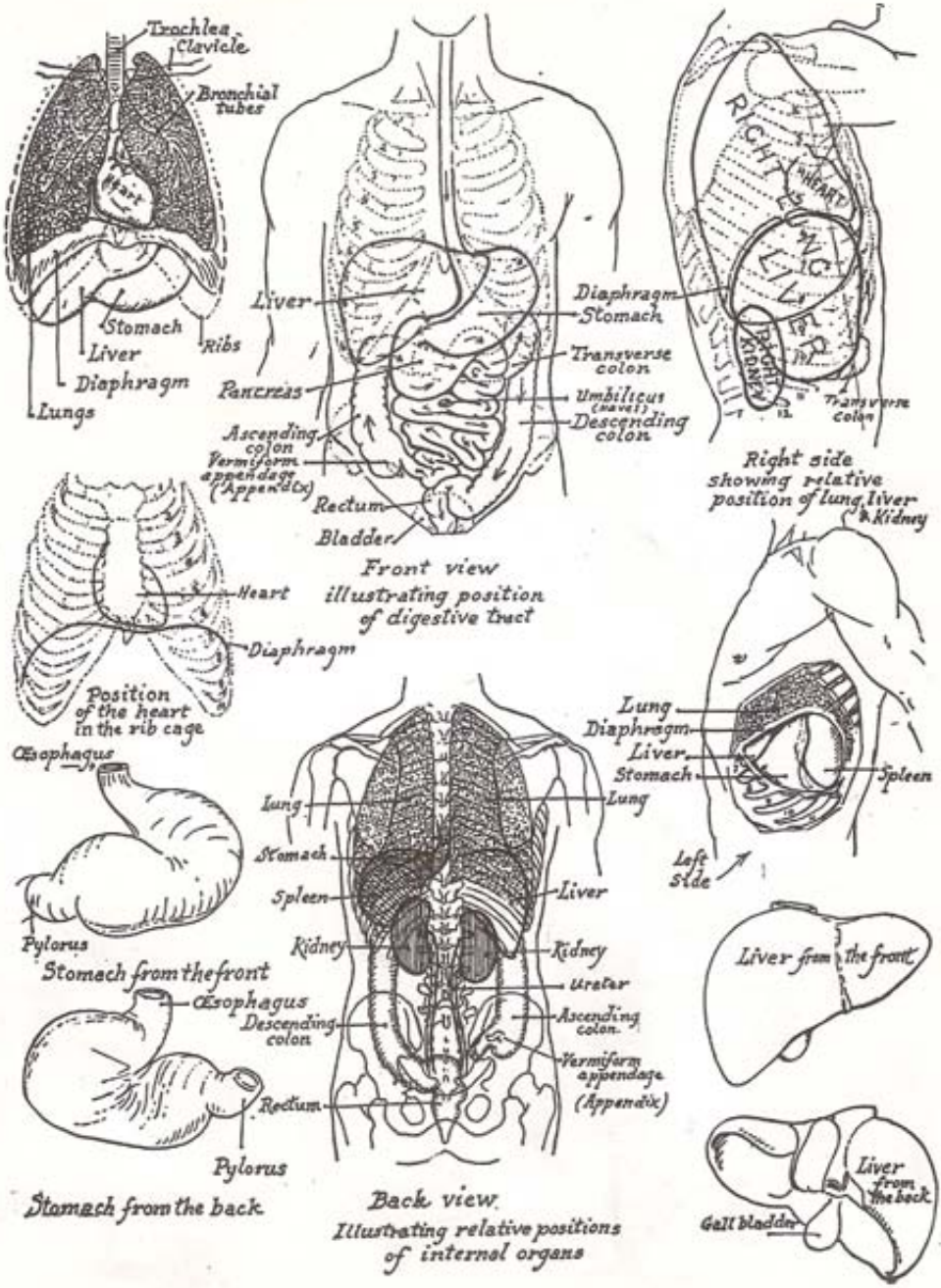



Olecranon process of ulna
Ulna
Radius
Humerus
Scapula
Sartorius
Adductor
Rectus femoris
Tensor fasciae femoris
Gluteus maximus
Vastus externus
Ilio-tibial band
Patella
Tibialis anticus
Gastrocnemius
Peroneus longus
Long extensor of toes
Extensor of great toe
Studies in foreshortening
Femur bone
Fibula
Tibia
Serratus magnus
Pectoral
Patella
Patella
Latissimus dorsi
Coraco-brachialis
Deltoid
Biceps
Brachialis anticus
Triceps
Femur bone
Rib cage
Fibula
Teres major
Latissimus dorsi
Deltoid
Trapezius
Biceps
Triceps
Anconeus
Extensor communis digitorum
Extensor carpi ulnaris


Gluteus medius
Gluteus maximus
Tensor fasciae femoris
Ilio tibial band
Biceps of leg
underlying fibres inserted in femur
Trapezius overlying Latissimus dorsi
Erector Spinae
Rhomboideus major minor
Teres major
Studies in foreshortening
Biceps of leg
Gastrocnemius
Soleus
Peroneus longus
Peroneus brevis
Plantar aponeurosis
Biceps of leg
Gluteus medius
Illustrating a few of the muscles of the leg
Erector femoris
Patella
Deltoid
Clavicle
Biceps
Brachialis anticus
Triceps
Anconeus
Supinator longus
Extensor communis
Muscles of thumb
Femur
Pelvic bone
Inner condyle of humerus
Humerus bone
Supinator longus
Clavicle
Scapula
Spine of scapula
Ulna


Flexor carpi ulnaris
Flexor sublimus digitorum
Palmaris longus
Flexor carpi radialis
Supinator longus
Brachialis anticus
Biceps
Triceps
Pectoral major
Deltoid
Coraco-brachialis
Tendo Achillis
Gastrocnemius
Plantaris
Popliteal space
Studies in foreshortening
Palmaris longus
Anconius
Extensor ulnaris
Extensor communis digitorum
Extensor carpi radialis longus
Supinator longus
Deltoid
Acromion process of scapula


Humerus bone
Olecranon process of ulna
Spine of Scapula
Scapula
Acromion process
Clavicle
Ilio-tibial band
Biceps of leg
Deltoid
Pectoral major clavicle fibres
" sternum "
Scapula
Sternum bone
Coraco-brachialis
Latissimus dorsi
Triceps
Teres major
Deltoid
Latissimus dorsi
Teres major
Erector femoris
Vastus externus
Tibialis anticus


Trachlea
Clavicle
Bronchial Tubes
Heart
Stomach
Liver
Ribs
Diaphragm
Lungs
Liver
Pancreas
Ascending colon
Vermiform appendage (Appendix)
Rectum
Bladder
Diaphragm
Stomach
Transverse colon
Umbilicus (navel)
Descending colon
Front view illustrating position of digestive tract
RIGHT LUNG
HEART
LIVER
RIGHT KIDNEY
Transverse colon
Right side showing relative position of lung liver & kidney
Heart
Diaphragm
Position of the heart in the rib cage
Œsophagus
Pylorus
Stomach from the front
Œsophagus
Descending colon
Rectum
Pylorus
Stomach from the back
Lung
Stomach
Spleen
Kidney
Liver
Kidney
Ureter
Ascending colon
Vermiform appendage (Appendix)
Back view
Illustrating relative positions of internal organs
Lung
Diaphragm
Liver
Stomach
Spleen
Left Side
Liver from the front
Liver from the back
Gall bladder